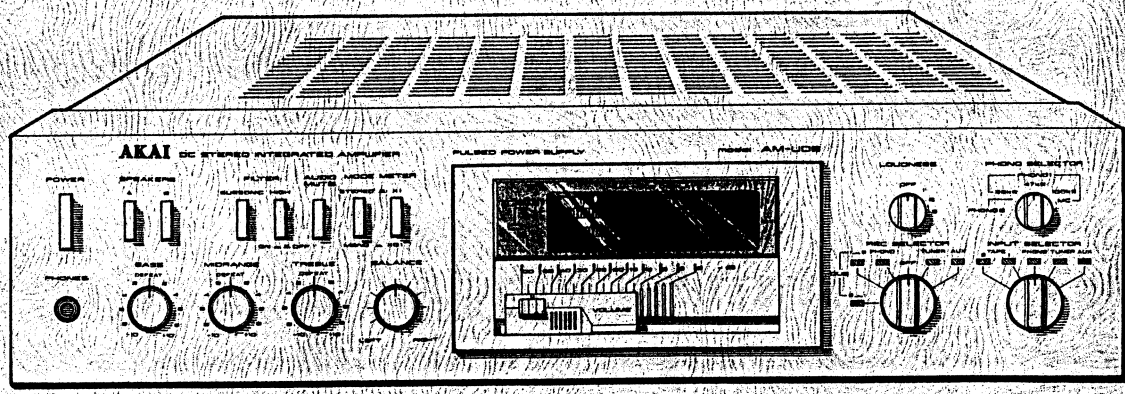
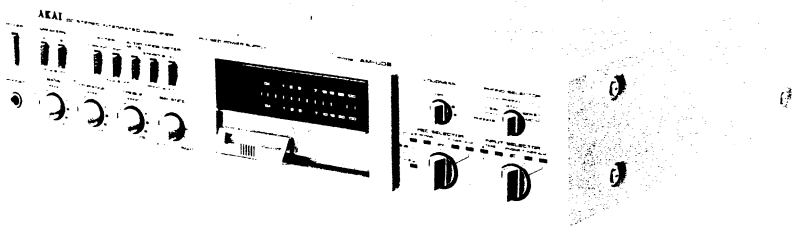
32565

AKAI SERVICE MANUAL



DC STEREO INTEGRATED AMPLIFIER

MODEL AM-U06



DC STEREO INTEGRATED AMPLIFIER

MODEL AM-U06

ALSO APPLICABLE TO BLACK PANEL MODEL

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SECTION 1

SERVICE MANUAL

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For basic adjustments, measuring methods, and operating principles, refer to GENERAL TECHNICAL MANUAL.

I. TECHNICAL DATA

POWER AMPLIFIER SECTION

RATED POWER OUTPUT 2-CHANNEL DRIVEN	68 watts per channel, minimum RMS, at 8 ohms from 20 to 20,000 Hz with no more than 0.008% total harmonic distortion
POWER BANDWIDTH (IHF)	6 Hz to 60 kHz/8 ohms (Total harmonic distortion: 0.05%)
SIGNAL TO NOISE RATIO (IHF) PHONO AUX	 Better than 84 dB Better than 97 dB*
RESIDUAL NOISE	Less than 0.5 mV at 8 ohms
CHANNEL SEPARATION (IHF) PHONO	 Better than 60 dB at 1,000 Hz
DAMPING FACTOR	More than 180 (1 kHz, 8 ohms)
OUTPUT SPEAKERS HEADPHONES	 A, B (4 to 16 ohms)/A+B (8 to 16 ohms) 4 to 16 ohms

PREAMPLIFIER SECTION

INPUT SENSITIVITY/IMPEDANCE PHONO 1 PHONO 2 AUX TUNER TAPE MONITOR	 MC: 80μV/10 ohms MM: 3 mV/33k, 47k, 100k ohms switchable 3 mV/47 kohms 150 mV/100 kohms 150 mV/100 kohms 150 mV/100 kohms (PIN) 20 mV/100 kohms (DIN)
OUTPUT LEVEL/IMPEDANCE TAPE REC REC OUTPUT	 150 mV/1 kohms (PIN) 150 mV/100 kohms (DIN) 1 V/1 kohms
FREQUENCY RESPONSE PHONO (RIAA EQUALIZATION) AUX, TUNER, TAPE MONITOR	 30 Hz to 15 kHz ±0.2 dB 6 Hz to 100 kHz +0 dB, −2 dB
TONE CONTROL BASS MIDRANGE TREBLE	 ±8 dB at 100 Hz ±6 dB at 1 kHz ±8 dB at 10 kHz
AUDIO MUTE	−20 dB
LOUDNESS CONTROL	at 100 Hz / at 10 kHz 1. 3 dB / 1. 2.5 dB 2. 6 dB / 2. 5 dB 3. 9 dB / 3. 8 dB (VOLUME control set at −30 dB position)
FILTER SUBSONIC HIGH	 −3 dB at 18 Hz −3 dB at 10 kHz

MISCELLANEOUS

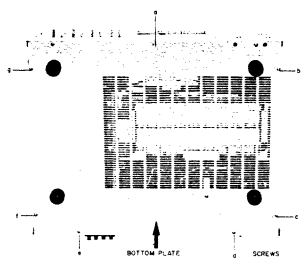
POWER REQUIREMENTS	120V, 60 Hz for USA and Canada 220V, 50 Hz for Europe except UK 240V, 50 Hz for UK and Australia 110V/220V/240V, 50/60 Hz internally switchable for other countries
POWER CONSUMPTION	U/T 280W CSA 360W AAL 220W CEE 450W UK, SAA 510W
DIMENSIONS	440 (W) x 105 (H) x 308 (D) mm (17.3 x 4.1 x 12.1 inches)
WEIGHT	8.3 kg (18.3 lbs)

* For improvement purposes, specifications and design are subject to change without notice.

II. DISMANTLING OF UNIT

In case of trouble, etc. necessitating dismantling, please dismantle in the order shown in the photographs. Reassemble in reverse order.

4



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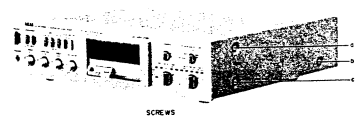

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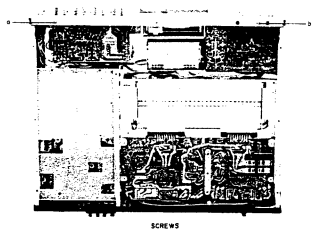

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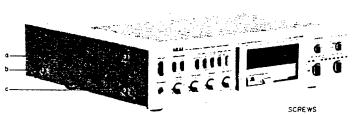

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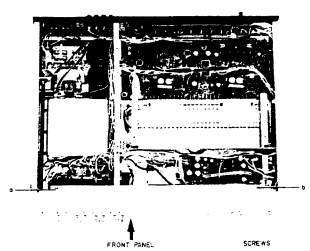

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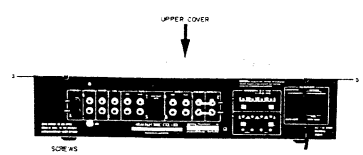

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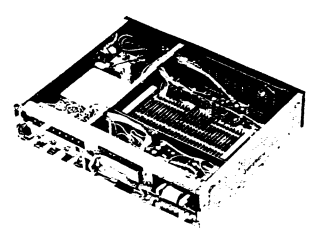
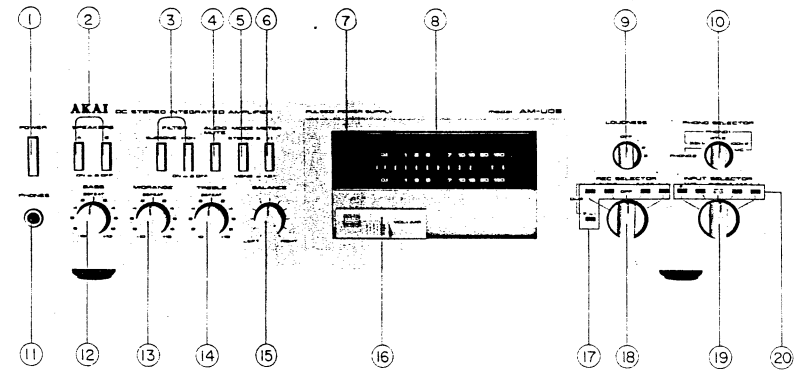


III. CONTROLS



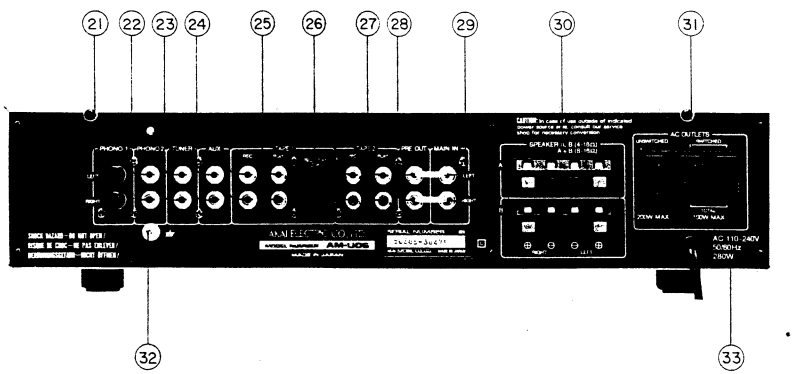


Fig. 1 Controls

1. POWER SWITCH
2. SPEAKER SYSTEM SELECTOR SWITCHES
3. FILTER SWITCHES
4. AUDIO MUTE
5. MODE SELECTOR
6. METER SWITCH
7. CLIPPING INDICATOR
8. FLD BAR METER
9. LOUDNESS SWITCH
10. PHONO SELECTOR
11. HEADPHONE JACK
12. BASS CONTROL
13. MIDRANGE TONE CONTROL
14. TREBLE CONTROL
15. STEREO BALANCE CONTROL
16. VOLUME CONTROL
17. RECORDING SELECTOR INDICATOR
18. RECORDING SELECTOR
19. INPUT SELECTOR
20. INPUT SELECTOR INDICATOR
21. PHONO 1 INPUT TERMINALS
22. PHONO 2 INPUT TERMINALS
23. TUNER TERMINALS
24. AUX TERMINALS
25. TAPE 1 SYSTEM REC/PLAY TERMINALS
26. TAPE 1 SYSTEM DIN JACK
    (Some models do not have this facility.)
27. TAPE 2 SYSTEM REC/PLAY TERMINALS
28. PRE-OUT TERMINALS
29. MAIN-IN TERMINALS
30. A AND B SYSTEM SPEAKER TERMINALS
31. EXTRA AC OUTLETS
    (Some models are not equipped with this facility.)
32. GROUND TERMINAL
33. AC CORD (Some models are equipped with an AC Inlet instead of an AC cord. Connect with an appropriate power cord.)

IV. PRINCIPAL PARTS LOCATION

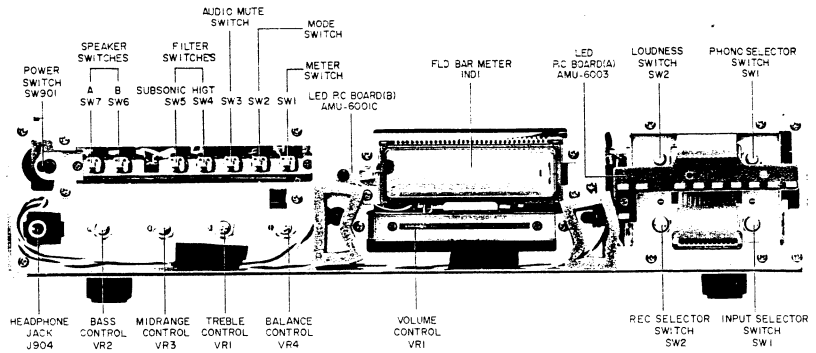


Fig. 2 Front View

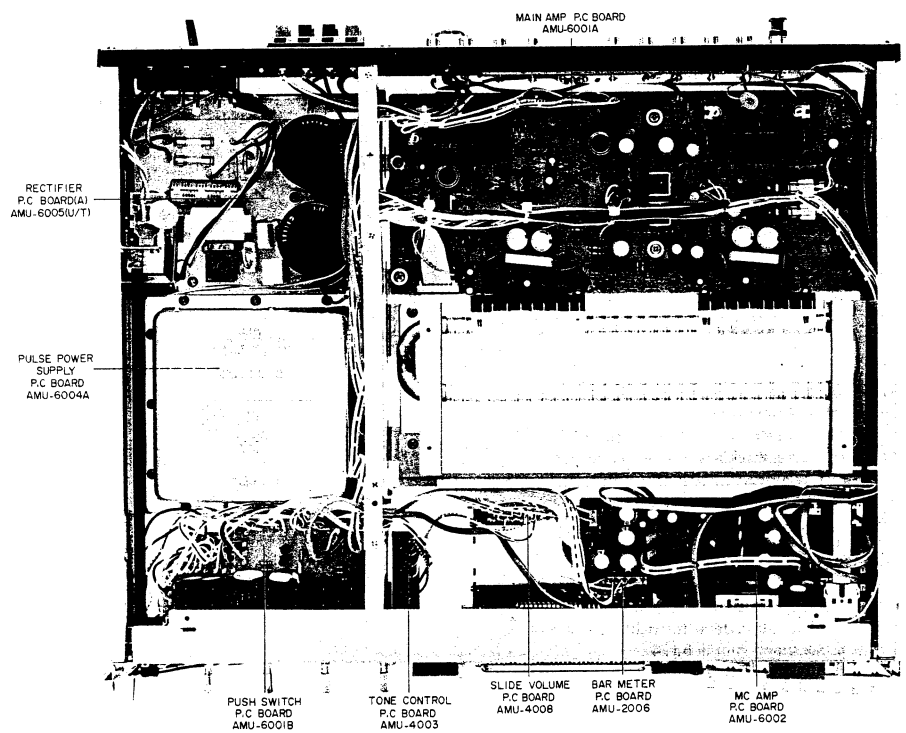

MAIN AMP P.C BOARD AMU-6001A
RECTIFIER P.C BOARD(A) AMU-6005(U/T)
PULSE POWER SUPPLY P.C BOARD AMU-6004A
PUSH SWITCH P.C BOARD AMU-6001B
TONE CONTROL P.C BOARD AMU-4003
SLIDE VOLUME P.C BOARD AMU-4008
BAR METER P.C BOARD AMU-2006
MC AMP P.C BOARD AMU-6002

Fig. 3 Top View

V. VOLTAGE CONVERSION

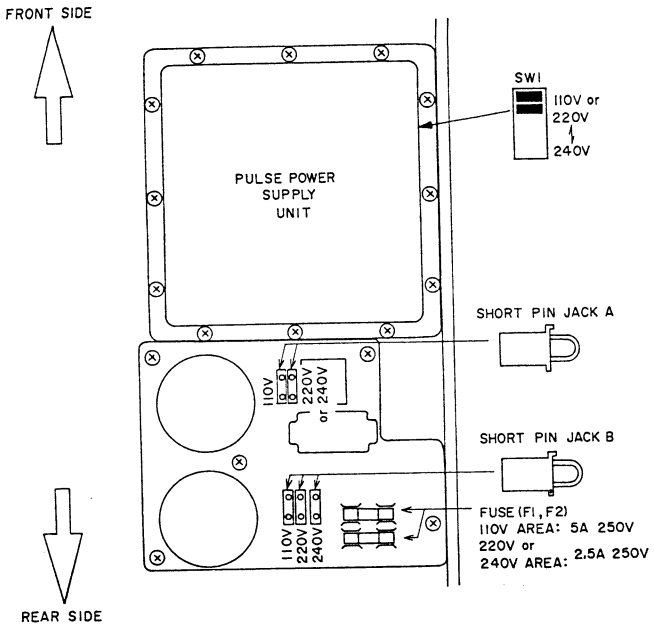


Fig. 4 Voltage Conversion (U/T model)

Models for Canada, USA, Europe, UK, and Australia are not equipped with this facility.
Each machine is preset at the factory according to destination but some machines can be set to 110 V, 220V or 240V as required.
If voltage change is necessary, this can be accomplished as follows.

1) Disconnect AC Power Cord.
2) Loosen holding screws and remove upper cover.
3) Align the short pin jacks A and B with the position for each voltage area as shown in Fig. 4.
4) Set the slide switch located at the right hand side of the pulse power supply unit in Fig. 4.
5) Change the fuses. 5A for 110V and 2.5A for 220 to 240V following the printed instructions explicitly.

VI. OPERATION OF PULSE POWER CIRCUIT

The Pulse Power Circuit is composed of a high-voltage rectifier circuit, oscillator starting circuit, inverter circuit (blocking oscillator circuit), transformer circuit, rectifier circuit and smoothing circuit as shown below.

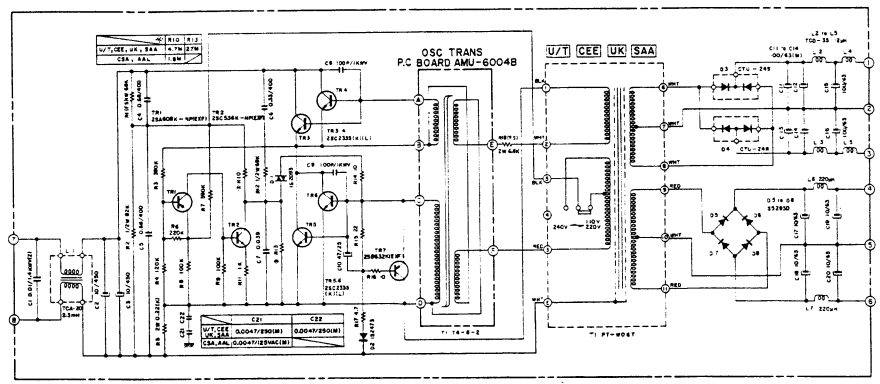


Fig. 5 Schematic Diagram for Power Section

1. HIGH-VOLTAGE RECTIFIER CIRCUIT

Either the voltage doubling rectifier system, or the bridge rectifier system is selected according to the difference in the power supply voltage. That is, voltage doubling rectification is adopted for input voltage of 100 to 120V (for the U.S. Canada and Japan), while bridge rectification is adopted for those of 220 to 240V (for Europe, etc.), to obtain a DC voltage of approximately 300V.

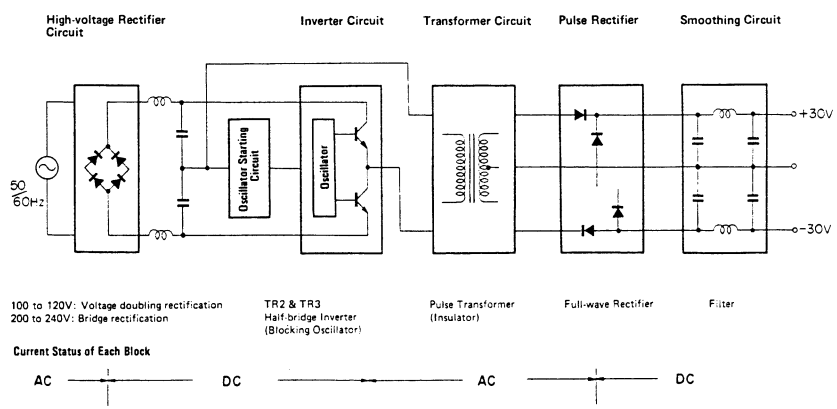


Fig. 6 Block Diagram

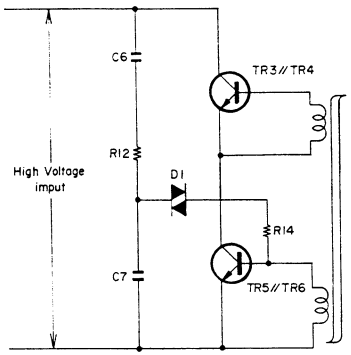


Fig. 7 Principle of Starting Oscillation

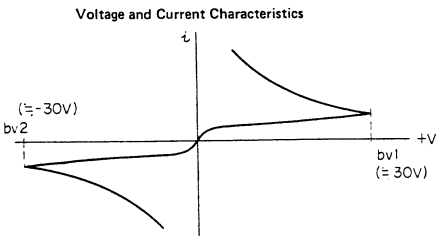


Fig. 8 Diode Characteristics

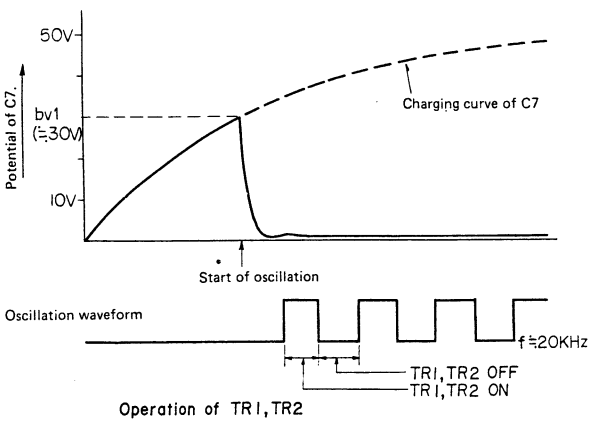


Fig. 9 Operation of TR1

2. OSCILLATOR STARTING CIRCUIT

At power switch-on, this circuit creates an initial pulse which starts the inverter circuit of the next stage. D1 is a double-directional trigger diode that quickly turns on when the voltage at both ends exceeds the breakover voltage (approx. 30V) as breakdown voltage flows through it. When the potential of C7 is raised to about 30V by switching-on the power, it will cause a positive trigger pulse to be applied to the bases of TR5//TR6, thereby starting oscillation.

During oscillation, 20 kHz and 300 Vp-p square waves will appear at the intersecting point of TR3// TR4 and TR4//TR5, so that TR1 and TR2 will will repeat the 20 kHz switching operation. That is, the potential of C7 will be discharged when they are turned on, whereas C7 will be charged when turned off. For this reason, the potential of C7 will not reach the break-over voltage of D1, as can be seen from Fig. 9, so that D1 will be in a high-impedance state. And the operations of these circuits are absolutely unrelated to those of other circuits.

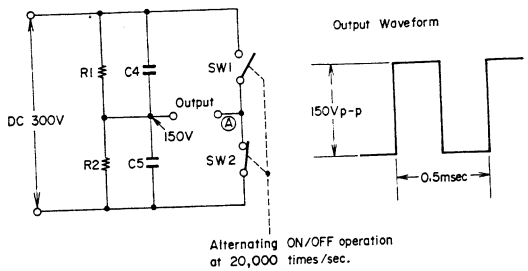


Fig. 10 Principle Diagram of Inverter

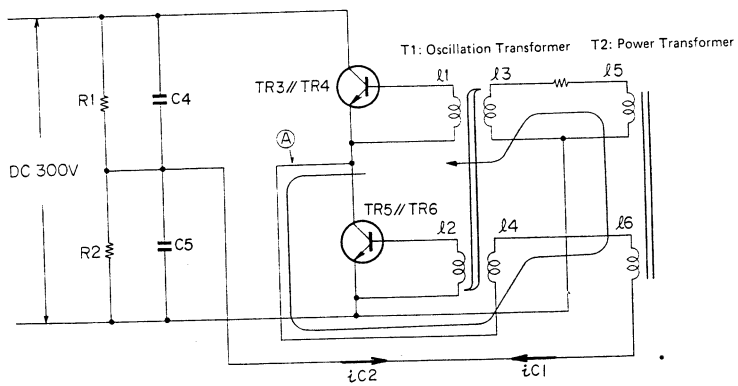


Fig. 11 Basic Schematic Diagram

3. INVERTER CIRCUIT (BLOCKING OSCILLATOR CIRCUIT)

As illustrated by Fig. 10, the inverter circuit alternately switches the DC voltage ON and OFF, thus converting it to square wave pulses. The switching is achieved by transistors under the use of a blocking oscillator. The operating principle is shown in Fig. 11. The 300V is divided into 150V and applied to the mid-point of C4 (R1) and C5 (R2). (This will be referred as the mid-point hereinafter.)

First, a trigger pulse is applied to the base of TR3 by the oscillator starting circuit. This causes TR3 to turn on and a collector current iC2 to flow in from the mid-point. Since this current flows from ℓ6 to ℓ4, current will also be induced in ℓ5 and ℓ3. Therefore, this current will be fed back to coil ℓ2 of TR3's base, following flux variations in T1 (Troidal transformer) which accompany current variations in ℓ3. As this loop is formed in a direction that realizes positive feedback, collector current iC2 will continue to increase with the increase in the base current of TR3. As a result, the current flowing through ℓ3 will also continue to increase, causing the flux density to become higher and to eventually reach saturation after the passage of a certain time. When the flux saturates so that the flux no longer varies, the ℓ3 to ℓ2 loop will be disconnected as a result. However, even after this positive feedback loop has been disconnected, collector current iC2 will continue to flow for a while, due to the action of the counter electromotive force that works in the direction that permits continued current flow. But, soon, the collector current will start to decrease rapidly.

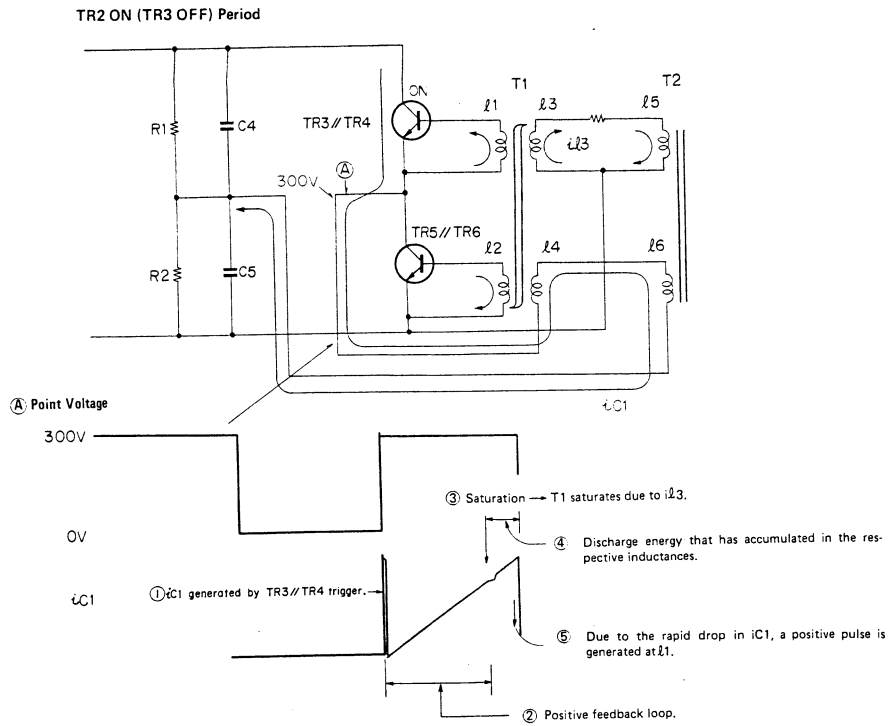


Fig. 12 TR3//TR4 turn-on period

During the above process, TR5//TR6 will be turned on, while TR3//TR4 will be "cut-off". This is because coil ℓ1 of TR3//TR4's base is wound in a direction opposite to which ℓ2 is wound, so that an inverse-direction voltage will be induced for TR3//TR4's base-emitter potential V_{BE}. For this reason, the potential of the intersecting point of TR3//TR4 and TR5//TR6 will become "0"V. When iC2 starts to decrease rapidly, the resultant flux variation will cause a positive pulse to be generated at ℓ1, which, in turn, will cause TR3//TR4 to turn on and TR5//TR6 to be cut-off.

Likewise, when the collector (emitter) current iC2 flows in the order of ℓ4 to ℓ6 to mid-point, it will cause a positive feedback loop of ℓ6 to ℓ5 to ℓ3 to ℓ1 to be formed, so that a process similar to that just described will take place.

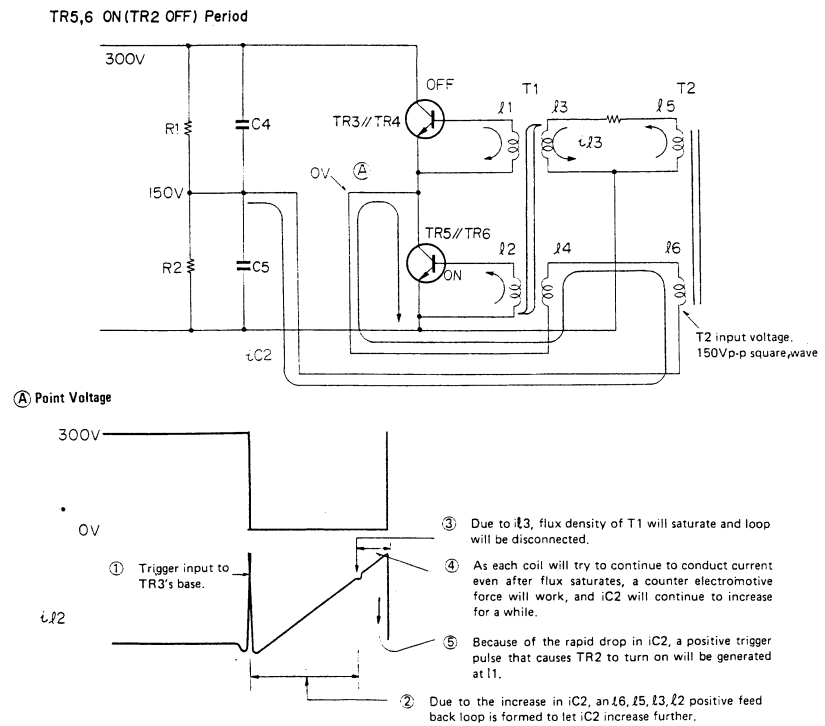

TR5,6 ON (TR2 OFF) Period
300V
R1
C4
TR3//TR4
OFF
T1
T2
ℓ1
ℓ3
ℓ5
iℓ3
0V
Ⓐ
150V
TR5//TR6
ℓ2
ℓ4
ℓ6
R2
C5
ON
iC2
T2 input voltage.
150Vp-p square wave
Ⓐ Point Voltage
300V
0V
① Trigger input to TR3's base.
iℓ2
③ Due to iℓ3, flux density of T1 will saturate and loop will be disconnected.
④ As each coil will try to continue to conduct current even after flux saturates, a counter electromotive force will work, and iC2 will continue to increase for a while.
⑤ Because of the rapid drop in iC2, a positive trigger pulse that causes TR2 to turn on will be generated at l1.
② Due to the increase in iC2, an ℓ6, ℓ5, ℓ3, ℓ2 positive feed back loop is formed to let iC2 increase further.

Fig. 13 TR5, 6 turn-on period

In this way, TR3//TR4 and TR5//TR6 will be alternately turned on again and again, causing square waves to be generated. Fig. 13 gives the waveforms appearing at the respective sections during the serial process.

When a potential is produced at R5 (0.22 ohms) due to overload (load shortening, etc.), TR7 goes ON and the base and emitter of TR5//TR6 are shortened, causing the oscillation to stop for overload protection.

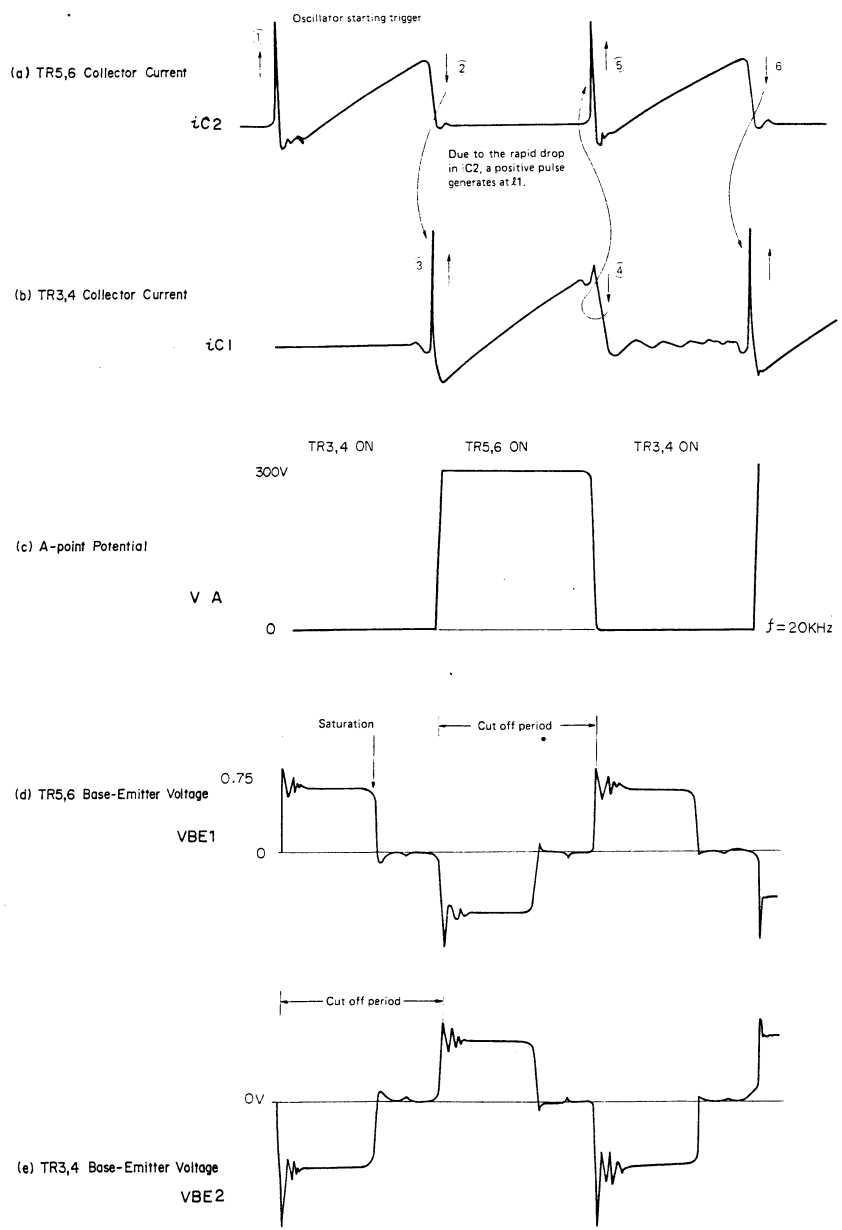


Fig. 14 Summary of waveforms appearing at each section

As shown in (d) and (e), the waveform of the base-emitter voltage of TR311//TR4 and TR5//TR6 will become "0" V upon saturation of T1's flux. In the meantime, the base current will flow in the direction similar to that before saturation, because of the counter electromotive force.
Meanwhile, by having a negative feedback applied at the high frequency range, the capacitor provided between the collector and bases of TR3//TR4 and TR5//TR6 will function so as to hold down the wave height to an adequate level to prevent the peak values from rising above the maximum ratings of the respective transistors.
The oscillating frequency of this circuit is determined by such factors as the maximum flux density of T1 and the current flowing through Ω3. It is ordinarily designed to be approximately 20 kHz.

4. TRANSFORMER CIRCUIT

Although it is based on the same principle as that applied to general power transformers, the core material has been changed into ferrite material from the conventional electrical steel plate material to match the input waveform (square wave of approx. 20 kHz). Owing to the high permeability and use of high frequencies, power loss is far less than with conventional transformers. Therefore, it permits miniaturization of circuitry, which is the advantage of using a pulse power supply.
At the same time, the transformer circuit functions to insulate the secondary-side chassis potential from the AC input potential applied to the prime side.

5. RECTIFIER CIRCUIT

Although this is a full-wave rectifier circuit intended for use with both plus and minus power supplied, it employs first recovery diodes having a quick reverse recovery time (trr) to enable high-efficiency rectification of square waves. Ordinary rectifying diodes cannot be used in this circuit.

6. SMOOTHING CIRCUIT

Because of the high frequencies, it enables direct current having a low ripple factor to be obtained with a small-capacity electrolytic capacitor. Since it has to handle square waves and impulsive triggers, and because of large number of harmonics, the pulse power supply is formed into an LPF (smoothing circuit employing a choke coil. At the same time, to avoid interference caused by radiation and induction of electromagnetic waves, the pulse power circuit, excluding the high-voltage rectifier circuit, is enclosed in a shield case to ensure sufficient shield-off. Packing used for the shield case is made of conductive material if it has been damaged during servicing or for other reasons, it must be replaced with new packing. Otherwise, undisirable radiation from the damaged part may cause noise to generate in other circuits.

VII. LEVEL DIAGRAM

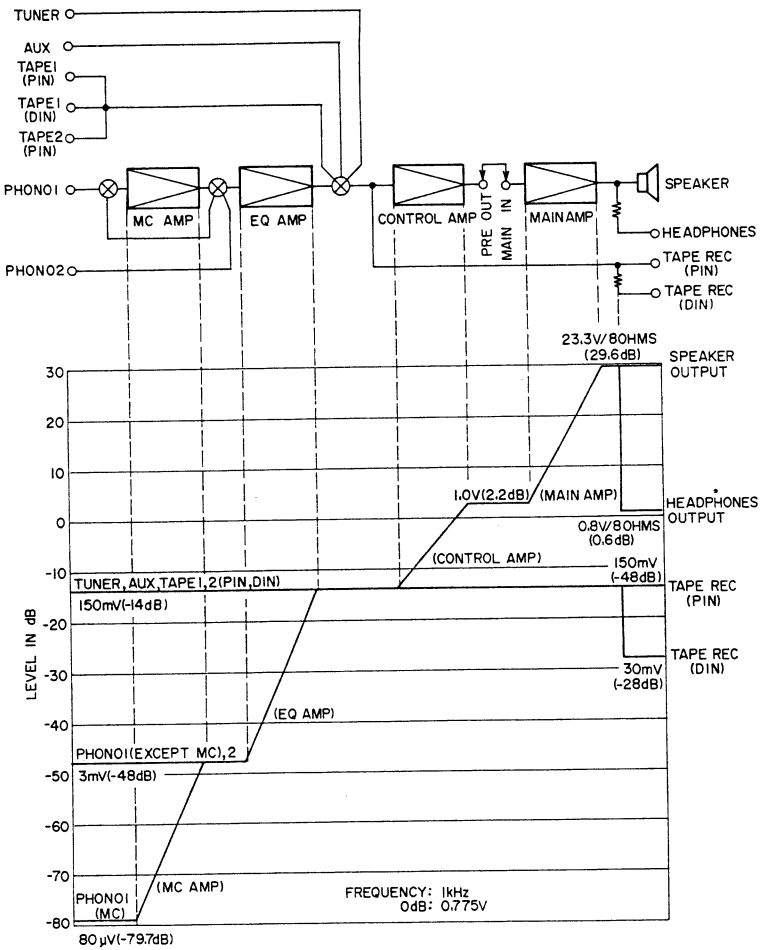


Fig. 15

VIII. ADJUSTMENTS

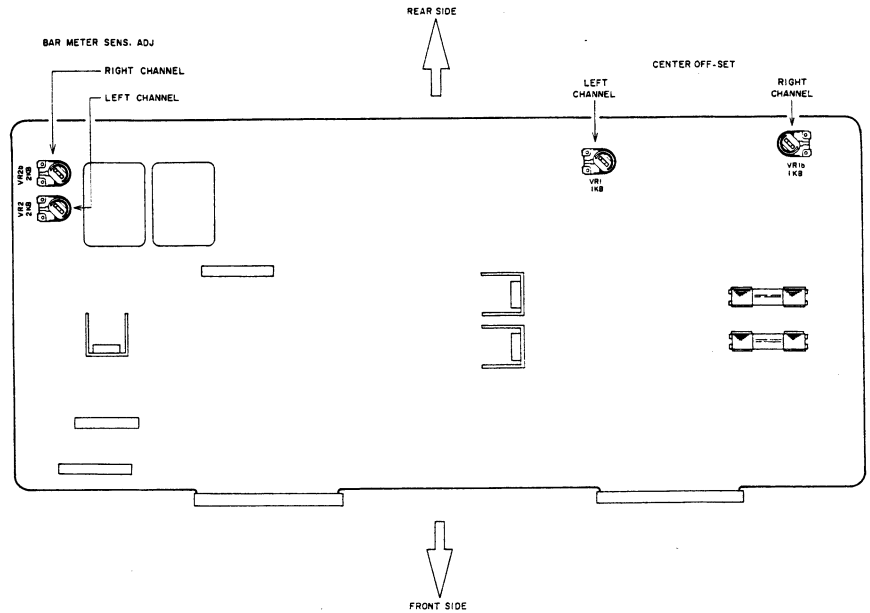


Fig. 16 Main Amp P.C. Board

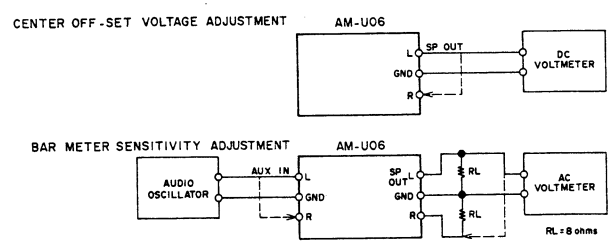


Fig. 17 Instruments connection

1. CENTER OFF-SET VOLTAGE ADJUSTMENT (Refer to Figs. 16, 17)

Connect the Digital Voltmeter or DC Voltmeter to the SPEAKER terminals. Adjust the VR1 (L-ch), VR1b (R-ch) on the Main Amp P.C. board, so that the Voltmeter reads 0 ± 10 mV.

2. BAR METER SENSITIVITY ADJUSTMENT (Refer to Figs. 16, 17)

Set the METER Switch to "x1 ■" position.
Connect load resistors (RL=8 ohms) to the SPEAKER terminals, and input a sine wave signal of 1 kHz to the AUX terminal. Control the input signal level until the AC Voltmeter connected to the both ends of the load resistor reads 10.95V.
Under this condition, adjust the VR2 (L-ch), VR2b (R-ch) 2kB, so that the BAR METER indicates 15W.

IX. CLASSIFICATION OF VARIOUS P.C BOARDS

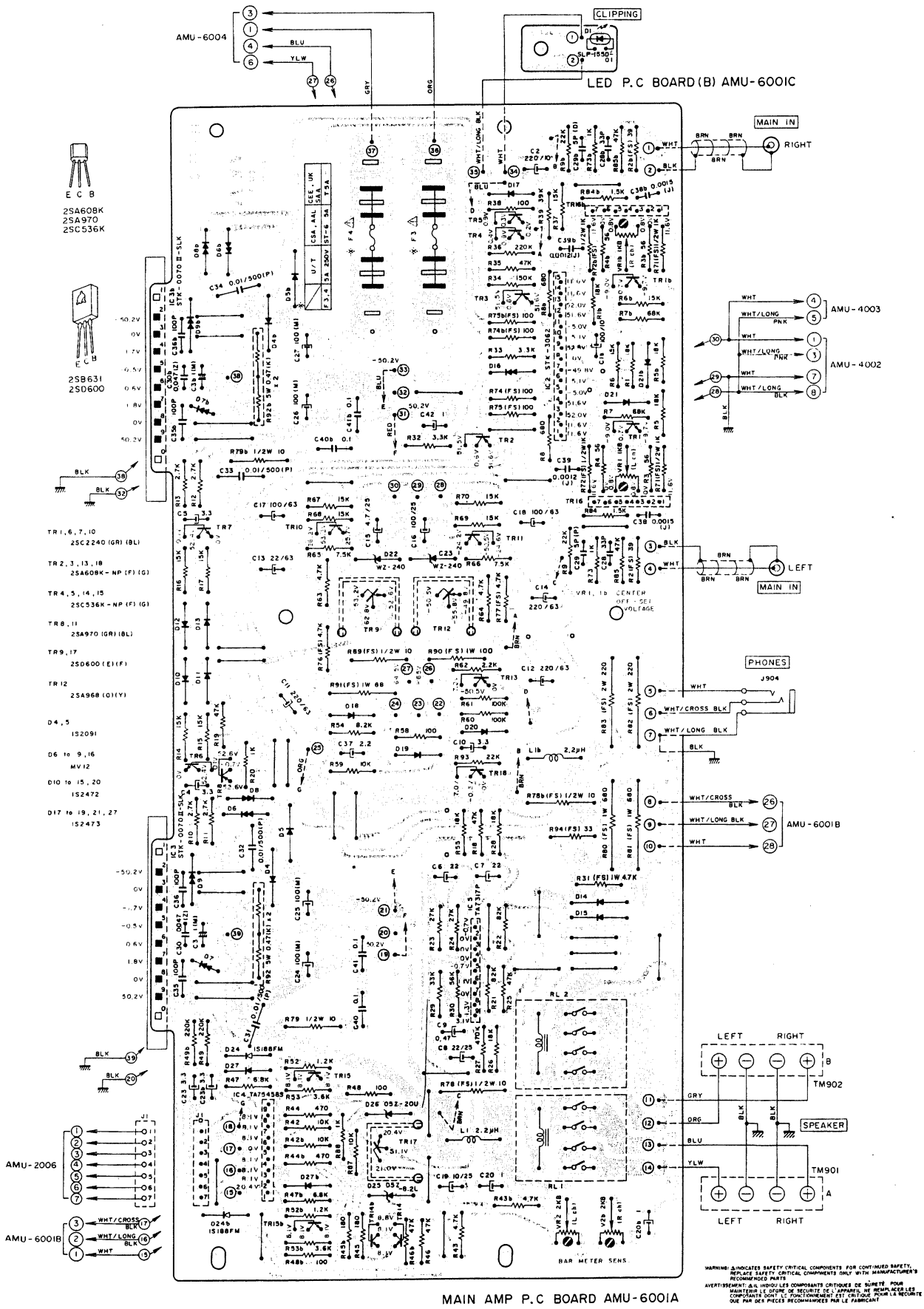
1. P.C BOARD TITLES AND IDENTIFICATION NUMBERS

P.C. Board Title	P.C Board Number
Main Amp P.C Board	AMU-6001A
Push Switch P.C Board	AMU-6001B
Led P.C Board (B)	AMU-6001C
MC Amp P.C Board	AMU-6002
LED P.C Board (A)	AMU-6003
Pulse Power Supply P.C Board	AMU-6004A
Rectifier P.C Board (A) (U/T)	AMU-6005
Rectifier P.C Board (C) (CEE, SAA, UK)	AMU-6006
Rectifier P.C Board (B) (CSA, AAL)	AMU-6023
Selector P.C Board	AMU-4002
Tone Control P.C Board	AMU-4003
Pin Jack P.C Board	AMU-4005
Slide Volume P.C Board	AMU-4008
Bar Meter P.C Board	AMU-2006

Chart-1

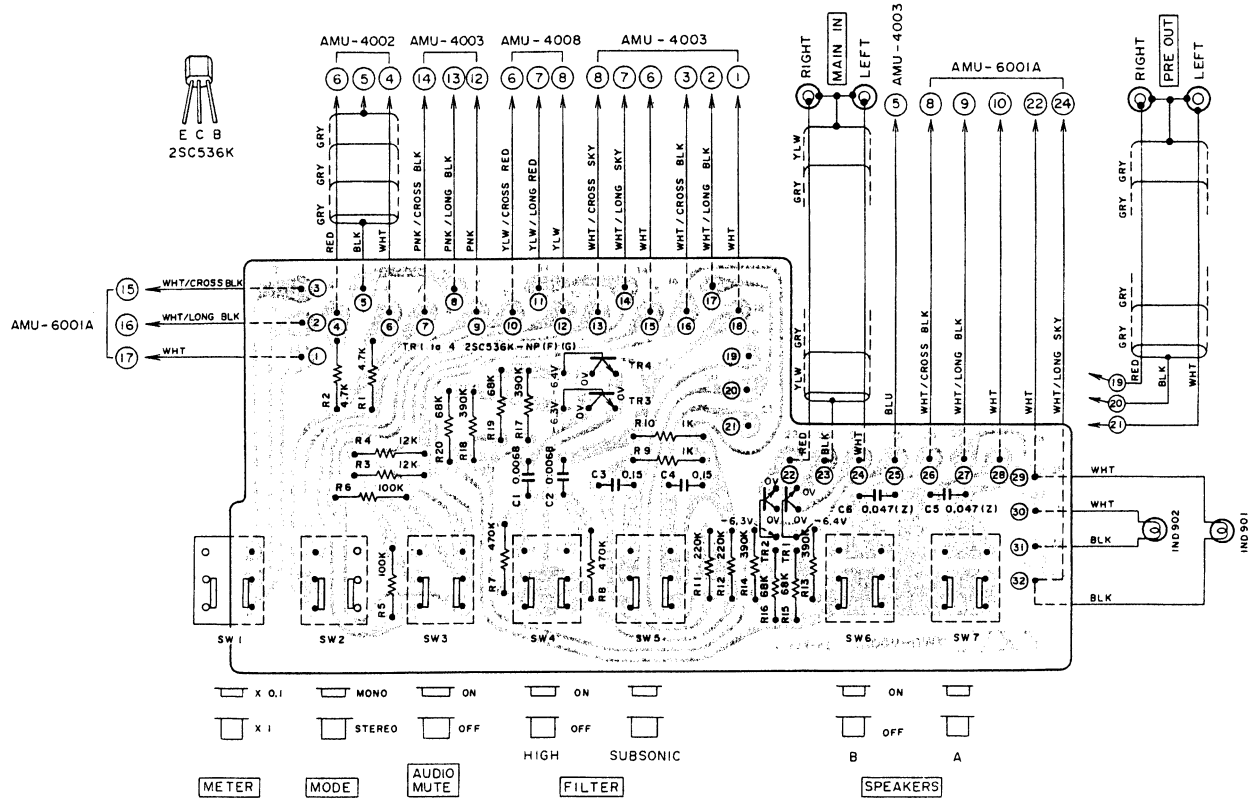
2. COMPOSITION OF VARIOUS P.C BOARDS

1) MAIN AMP P.C BOARD AMU-6001A and LED P.C BOARD (B) AMU-6001C

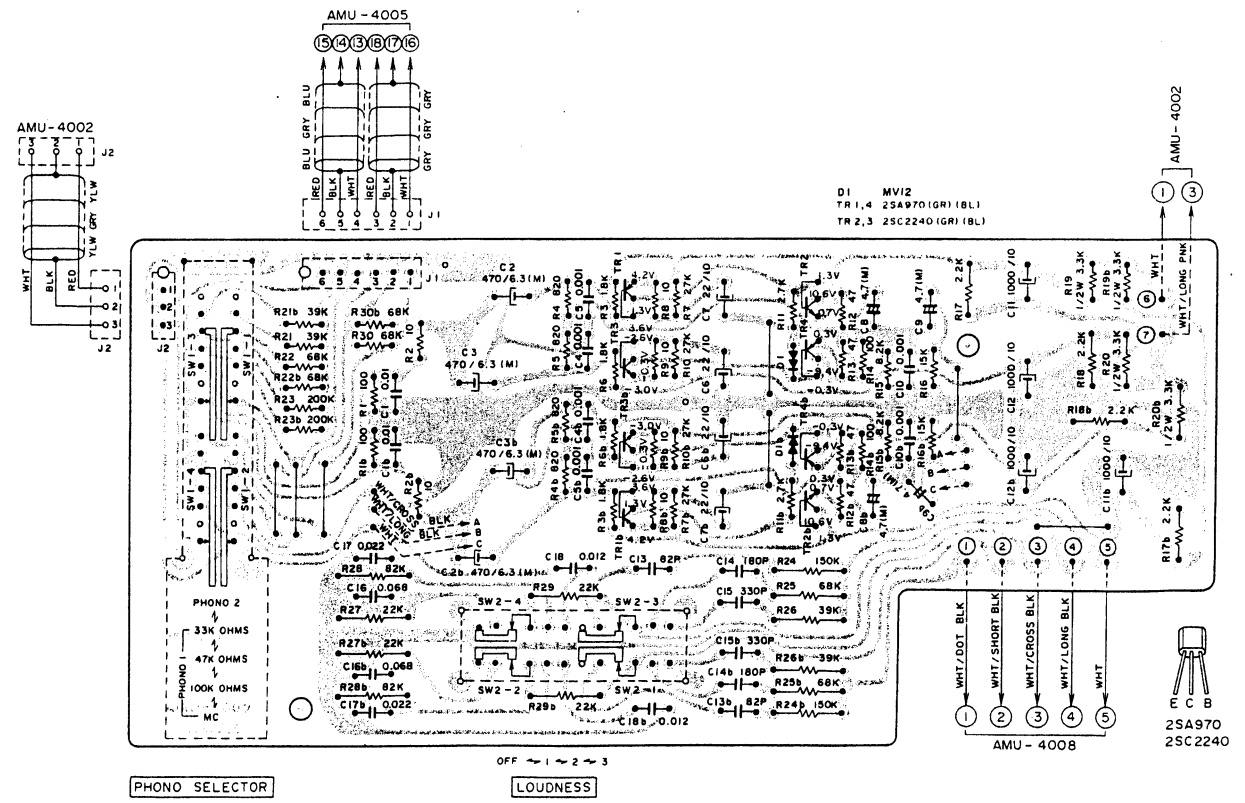


WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS
AVERTISSEMENT: ⚠ IL INDIQU LES COMPOSANTS CRITIQUES DE SURETE. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT

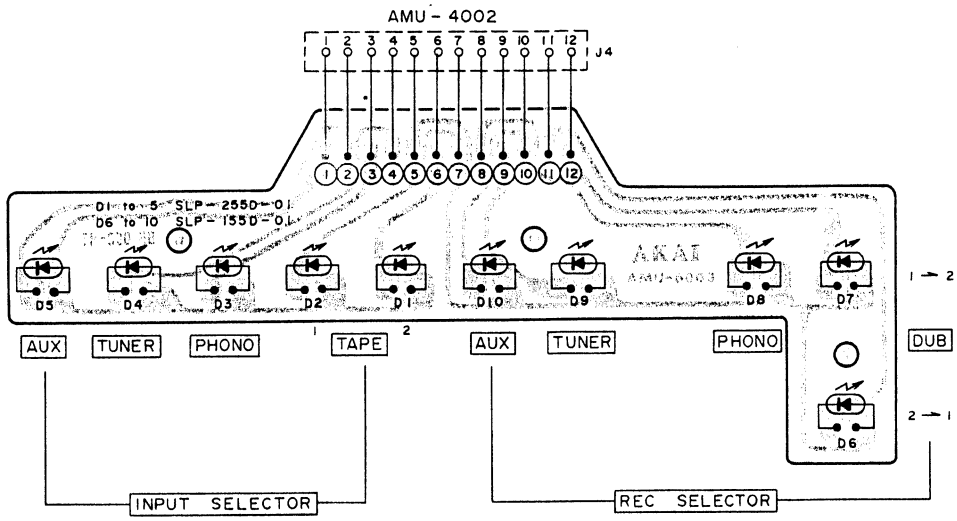
2) PUSH SWITCH P.C BOARD AMU-6001B



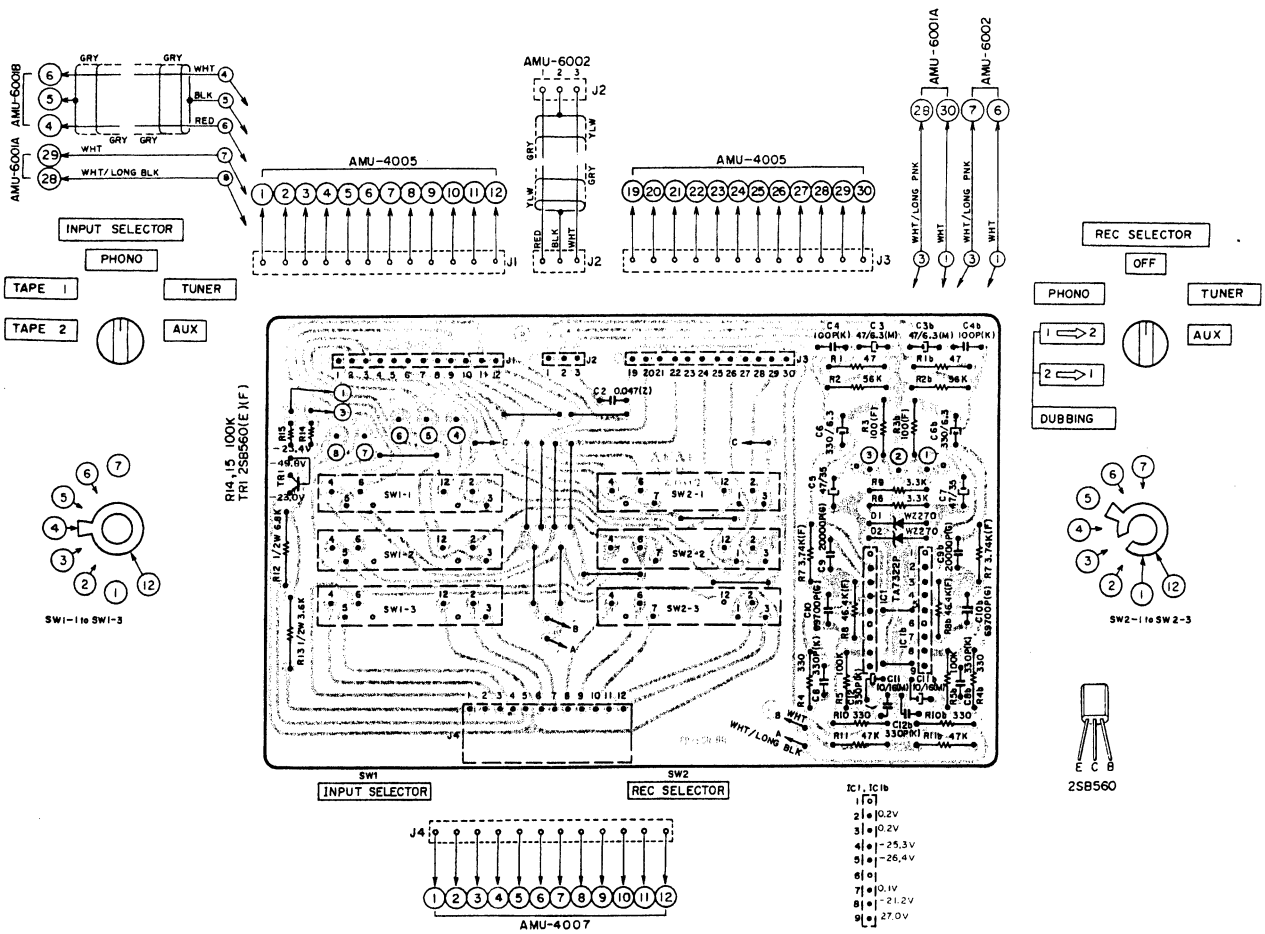
3) MC AMP P.C BOARD AMU-6002



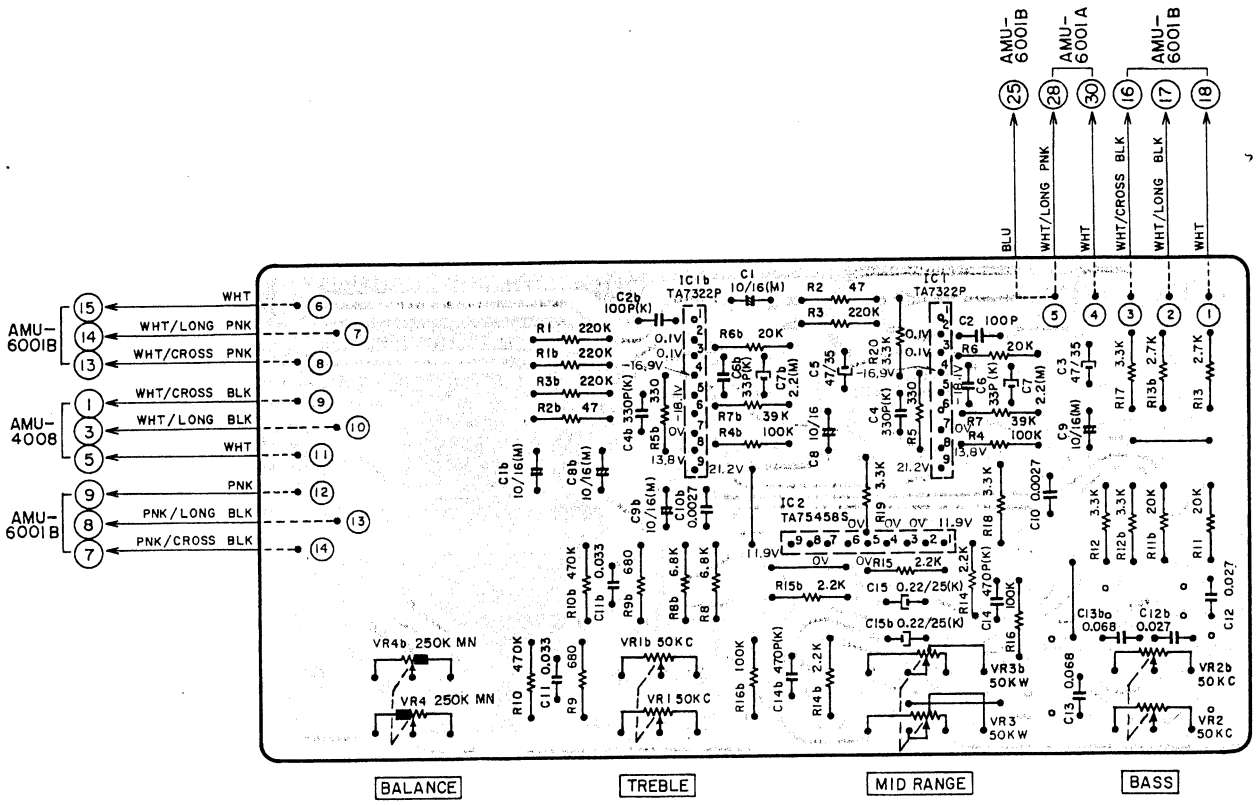
4) LED P.C BOARD (A) AMU-6003



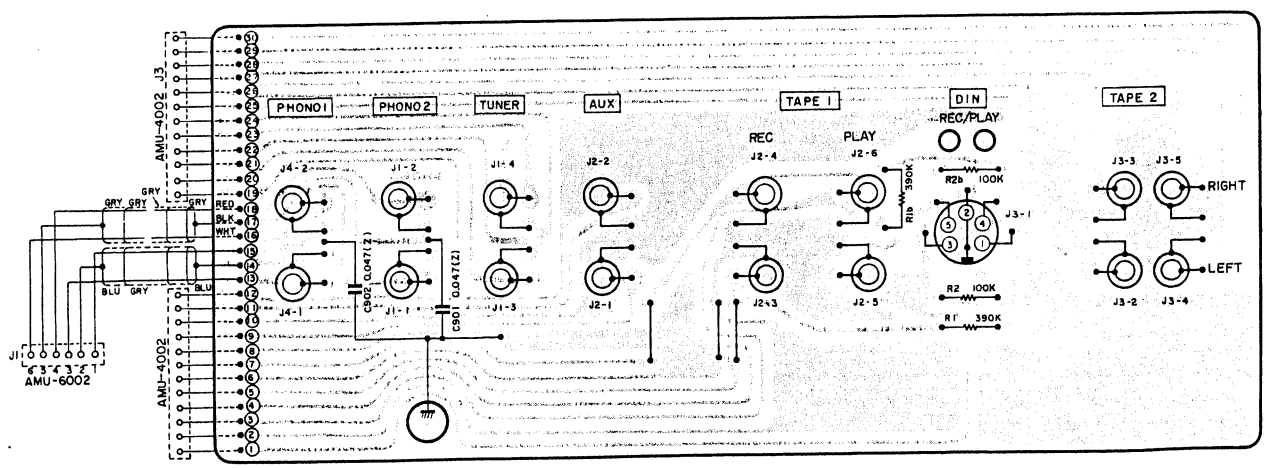
5) SELECTOR P.C BOARD AMU-4002



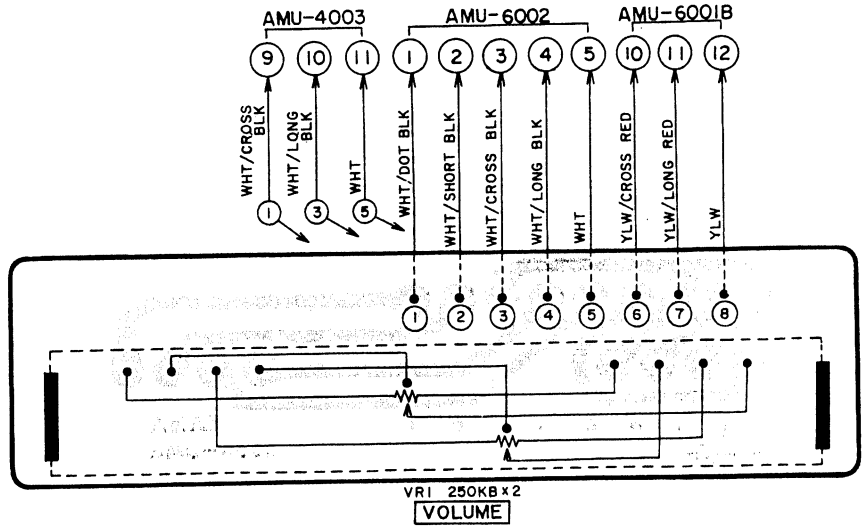
6) TONE CONTROL P.C BOARD AMU-4003



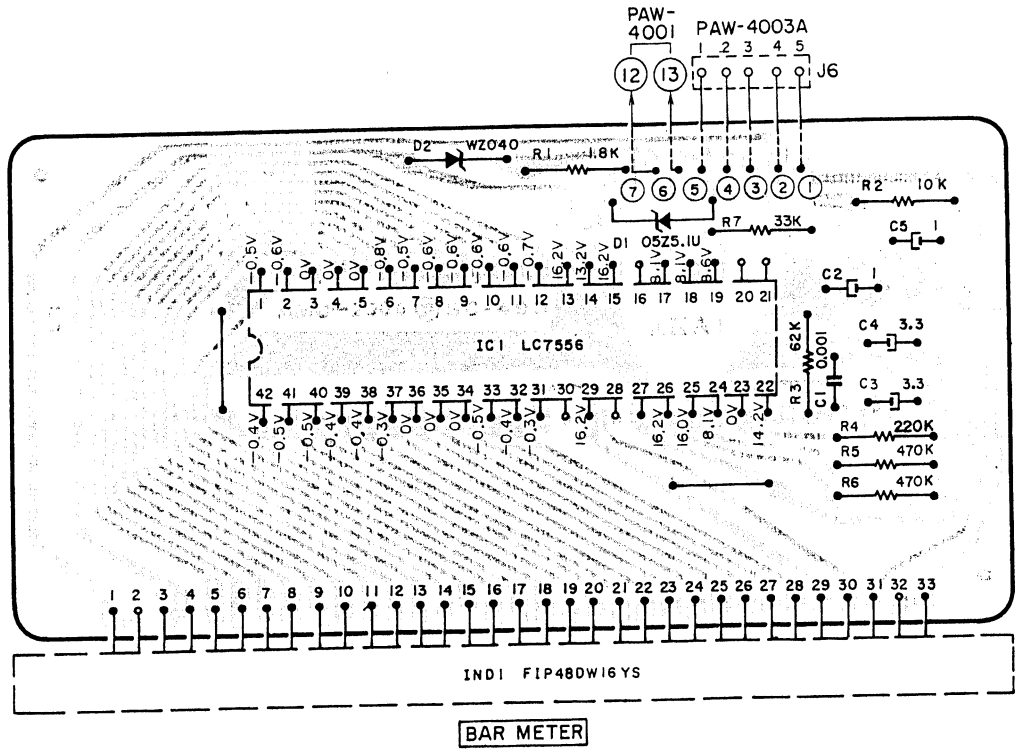
7) PIN JACK P.C BOARD AMU-4005



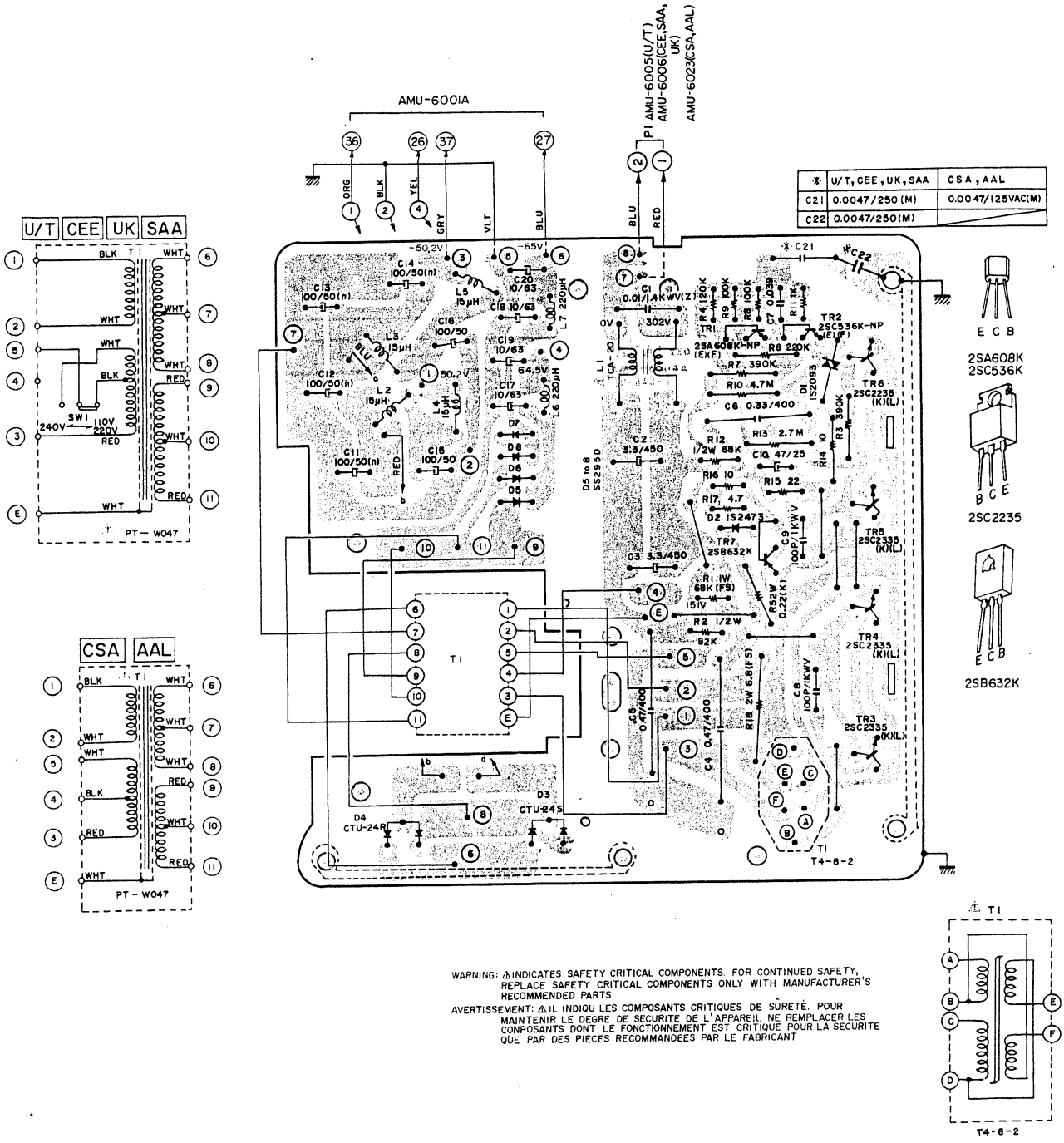
8) SLIDE VOLUME P.C BOARD AMU-4008



9) BAR METER P.C BOARD AMU-2006



10) PULSE POWER SUPPLY P.C BOARD AMU-6004A (2ED)

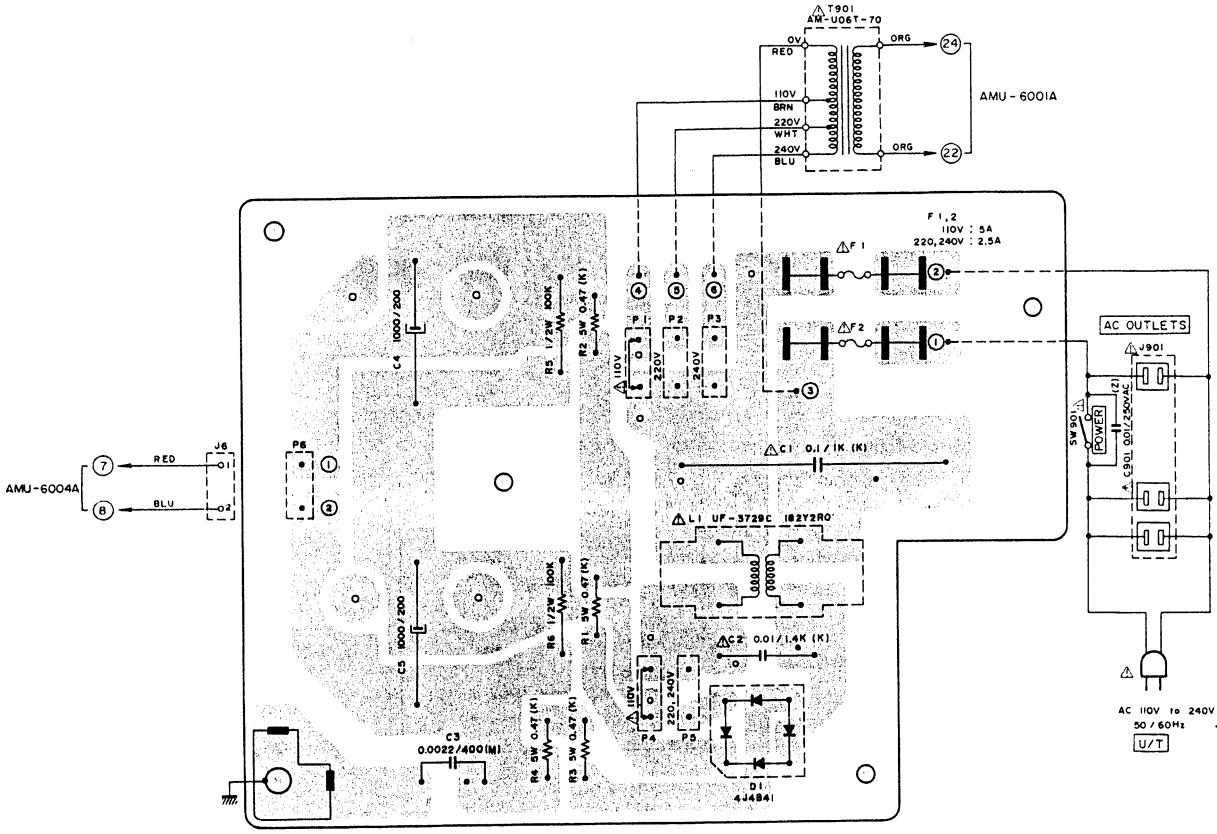


※	U/T, CEE, UK, SAA	CSA, AAL
C21	0.0047/250 (M)	0.0047/125VAC(M)
C22	0.0047/250(M)	

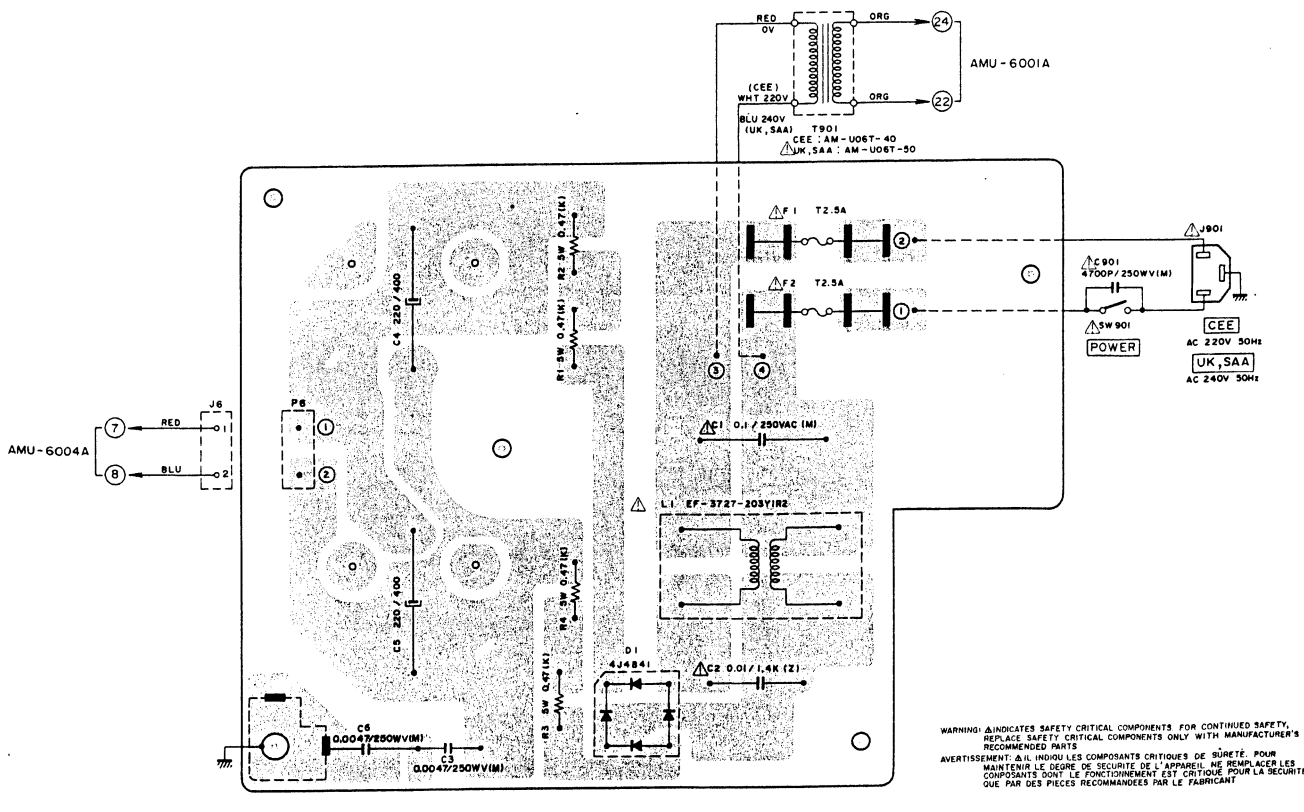
WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQU LES COMPOSANTS CRITIQUES DE SÛRETÉ. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES CONPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT

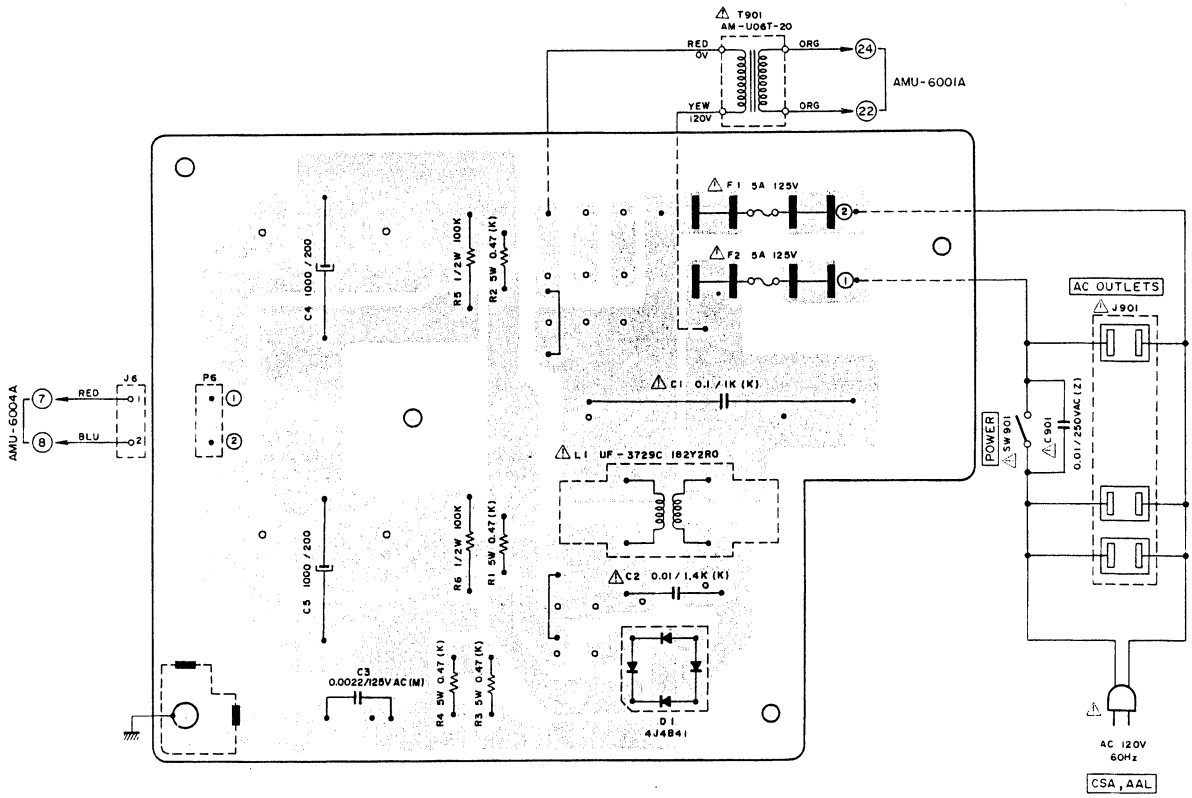
11) RECTIFIRE P.C BOARD (A) (U/T) AMU-6005



12) RECTIFIER P.C BOARD (C) (CEE, UK, SAA) AMU-6006



13) RECTIFIER P.C BOARD (B) (CSA, AAL) AMU-6023



WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQU LES COMPOSANTS CRITIQUES DE SÛRETÉ. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES CONPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT

MEMO

SECTION 2

PARTS LIST

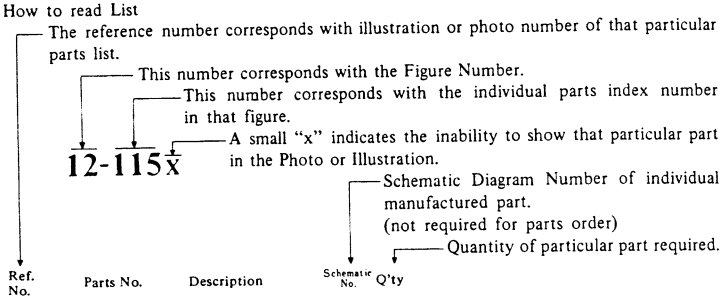
TABLE OF CONTENTS

1. RECOMMENDED SPARE PARTS LIST 32
2. MAIN AMP P.C BOARD (AMU-6001A) BLOCK 34
3. MC AMP P.C BOARD (AMU-6002) BLOCK 35
4. PULSE POWER SUPPLY P.C BOARD (AMU-6004A) BLOCK 35
5. RECTIFIER P.C BOARD (AMU-6005/6006/6023) BLOCK 36
6. SELECTOR P.C BOARD (AMU-4002) BLOCK 36
7. TONE CONTROL P.C BOARD (AMU-4003) BLOCK 37
8. PUSH SW. P.C BOARD (AMU-6001B) BLOCK 37
9. ASSEMBLY BLOCK 38
10. FINAL ASSEMBLY BLOCK 40
INDEX 41

Resistor and Capacitor which is not listed in this parts list, please refer to COMMON LIST FOR SERVICE PARTS.

HOW TO USE THIS PARTS LIST

1. This parts list is compiled by various individual blocks based on assembly process.
2. When ordering parts, please describe parts number, serial number, and model number in detail.
3. How to read List


The reference number corresponds with illustration or photo number of that particular parts list.
This number corresponds with the Figure Number.
This number corresponds with the individual parts index number in that figure.
A small "x" indicates the inability to show that particular part in the Photo or Illustration.
12-115x
Schematic Diagram Number of individual manufactured part. (not required for parts order)
Quantity of particular part required.
Ref. No.
Parts No.
Description
Schematic No.
Q'ty

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
		FLYWHEEL BLOCK #13		
12-115x	800425	Flywheel Block Assy. Comp.	RDG #13	1
12-116	244506	Flywheel Only	RD-233	1
12-117x	244754	Felt, Flywheel	RD-275	1
12-118	251324	Main Metal Case	RD-236	1
12-119	253080	Main Metal	RD-237	1

4. The symbol numbers shown on the P.C. Board list can be matched with the Composite Views of Components of the Schematic Diagram or Service Manual.
5. Please utilize separate "Common List for Service Parts" for Resistor Parts orders.
6. The shape of the parts and parts name, etc. can be confirmed by comparing them with the parts shown on the Electrical Parts Table of P.C. Board.
7. Both the kind of part and installation position can be determined by the Parts Number. To determine where a parts number is listed, utilize Parts Index at end of Parts List.
   It is necessary first of all to find the Parts Number. This can be accomplished by using the Reference Number listed at right of parts number in the Parts Index. (meaning of ref. no. outlined in Item 3 above).
8. Utilize separate "Price List for Parts" to determine unit price. The most simple method of finding parts Price is to utilize the reference number.

CAUTION:
1. When placing an order for parts, be sure to list the parts no. model no., and description. There are instances in which if any of this information is omitted, parts cannot be shipped or the wrong parts will be delivered.
2. Please be careful not to make a mistake in the parts no. If the parts no. is in error, a part different from the one ordered may be delivered.
3. Because parts number and parts unit supply in the Preliminary Service Manual (Basic Parts List) may be partially changed, please use this parts list for all future reference.

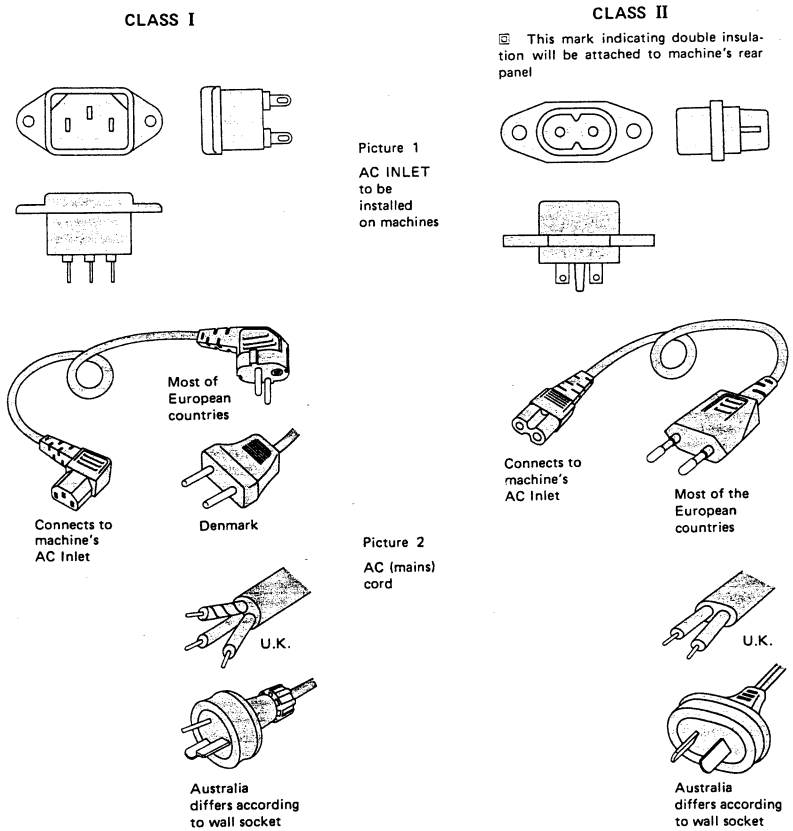
WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

AVERTISSEMENT: ⚠ IL INDIQU LES COMPOSANTS CRITIQUES DE SURETE. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT.

AC INLET SYSTEM

This model is equipped with an AC INLET SYSTEM. Please refer to the AC INLET SYSTEM CHART below for the specific type. By the AC INLET SYSTEM, AC (mains) cord can be connected to and disconnected from the model because the model is provided with socket exclusively for AC (mains) cord on its main body.
Please note, however, that certain models are not equipped with this system and has a built-in AC (mains) cord as before.

AC INLET SYSTEM CHART


CLASS I
CLASS II
This mark indicating double insulation will be attached to machine's rear panel
Picture 1
AC INLET to be installed on machines
Most of European countries
Connects to machine's AC Inlet
Denmark
Connects to machine's AC Inlet
Most of the European countries
Picture 2
AC (mains) cord
U.K.
U.K.
Australia differs according to wall socket
Australia differs according to wall socket

Parts List for AC (mains) Cord Set

Standard		Description	Type of AC Inlet	Parts No.
Class I	CEE	Cord Set CEE (3 cores)	3P	EW302993
	BEAB	Cord Set BEAB (3 cores)	3P	EW302994
	SAA	Cord Set SAA (3 cores)	3P	EW302996
	U/T	Cord Set U/T (3 cores)	3P	EW302646
Class II	CEE	Cord Set CEE (2 cores)	2P	EW638144
	BEAB	Cord Set BEAB (2 cores)	2P	EW302995
	SAA	Cord Set SAA (2 cores)	2P	EW302991
	U/T	Cord Set U/T (2 cores)	2P	EW302899

1. RECOMMENDED SPARE PARTS LIST

Because, if the parts listed below are on hand, almost any repair can be accomplished, we suggest that you stock these Recommended Spare Parts Items.

Parts No.	Description	Notes
BA320373	Main Amp P.C Board Comp. AM-U06 (CEE)	CEE, UK, SAA
BA320374	Main Amp P.C Board Comp. AM-U06 (CSA)	CSA, AAL
BA320352	Main Amp P.C Board Comp. AM-U06 (U/T)	
BT326589	⚠ Power Trans. AM-U06T-20	CSA, AAL
BT326590	⚠ Power Trans. AM-U06T-40	CEE
BT326591	⚠ Power Trans. AM-U06T-50	UK, SAA
BT326592	⚠ Power Trans. AM-U06T-70	U/T
BT326607	Pulse Trans. PT-W06T	
EC326583	⚠ Metallized Mylar/C. (Vert.) 0.047μF (K) 400WV	CSA, AAL
ED562386	Germanium Diode 1S188AM	
ED322772	LED SLP-155D-01	
ED322773	LED SLP-255D-01	
ED323513	Silicon Diode CTU-24R	
ED323512	Silicon Diode CTU-24S	
ED325275	Silicon Diode S5295D	
ED323056	Silicon Diode 1S2091	
ED214457	Silicon Diode 1S2472	
ED624903	Silicon Diode 1S2473	
ED560913	Silicon Diode 1S2473 VE	
ED326605	Silicon Stack 4J4B41	
ED323057	Silicon Varister MV12	
ED323573	Trigger Diode 1S2093	
ED242368	Zener Diode WZ-240	
ED323059	Zener Diode WZ-270	
ED323534	Zener Diode 05Z-20U	
ED323535	Zener Diode 05Z-8.2L	
EF459843	⚠ Fuse ST-6 5A	CSA, AAL
EF306951	⚠ Fuse 2.5A 250V	U/T
EF326613	⚠ Fuse 5A 250V	U/T
EF623125	⚠ Fuse (Semko T) 2.5AT	CEE, UK, SAA
EF249851	⚠ Fuse (Semko T) 5AT	CEE, UK, SAA
EI326597	IC STK-0070(2)-SL	
EI326595	IC STK-3062	
EI323564	IC TA7317P	
EI323054	IC TA7322P	
EI322599	IC TA75458S	
EI325947	Osc. Trans. P.C Board Assy AM-U06	
EJ240535	⚠ 3-Throw AC Outlet	U/T, CSA, AAL
EJ296853	⚠ 3P Inlet CM-3	CEE, UK, SAA
EJ323145	DIN 5P, Pin Jack 4P	

Parts No.	Description	Notes
EJ301199	Headphone Jack 3P64M	
EJ326596	Pin Jack 2P	
EJ323143	Pin Jack 4P	
EJ323144	Pin Jack 6P	
EJ322582	Push Terminal 4P	
EL326611	Lamp (Cord) 8V 50mA (550mm×2)	
EO326617	Phase Compensation Coil 2.2μH (K)	
EP313565	Relay MS4U 48V DC	
ES324162	⚠ Push SW. SDG-1P TV-5	U/T
ES679566	⚠ Push SW. SDG1P TV-5	CSA, AAL
ES310839	⚠ Push SW. SDG1P-E 5A/80A 250V	CEE, UK, SAA
ES326587	Rotary Slide SW. SRZR044S	
ES326586	Rotary Slide SW. SRZW45S	
ES323062	Rotary SW. SRJ3035	
ES323063	Rotary SW. SRJ3036	
ES306725	Slide SW. J-S4017	
ES326593	7-Throw Push SW. J-K2113	
ET311792	FET 2SK150 (GR) (Y) (BL)	
ET323529	Transistor 2SA608K-NP (E) (F)	
ET322244	Transistor 2SA608K-NP (F) (G)	
ET311791	Transistor 2SA968 (O) (Y)	
ET305463	Transistor 2SA970 (GR) (BL)	
ET219868	Transistor 2SB560 (E) (F)	
ET322598	Transistor 2SB632K (E) (F)	
ET307195	Transistor 2SC2240 (GR) (BL)	
ET323572	Transistor 2SC2335 (K)	
ET316171	Transistor 2SC536K-NP (E) (F)	
ET316643	Transistor 2SC536K-NP (F) (G)	
ET323105	Transistor 2SD600 (E) (F)	
EV478686	Semi-Fixed/Vol. V8K4-1 1kB	
EV464196	Semi-Fixed/Vol. V8K4-1 2kB	
EV324346	Single-Axial 2-Throw/Vol. V16L4G3N 250kΩ×2	
EV323061	2-Throw Slide/Vol. WSDA119F02 250k (Special)×2	
EV323053	2-Throw/Vol. GM70ED78A 50kW×2	
EV323051	2-Throw/Vol. GM70E838A-50kC×2	
EV323052	2-Throw/Vol. GM70E839A-50kC×2	
EW306428	⚠ AC Cord (U/T)	
EW305691	⚠ AC Cord CUL	CSA, AAL

2. MAIN AMP P.C BOARD (AMU-6001A) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
2-1	BA320352	Main Amp P.C Board Comp. AM-U06 (U/T)	AMU-6038
2-2	BA320374	Main Amp P.C Board Comp. AM-U06 (CSA) (CSA, AAL)	AMU-6038
2-3	BA320373	Main Amp P.C Board Comp. AM-U06 (CEE) (CEE, UK, SAA)	AMU-6038
2-IC2	EI326595	IC STK-3062	45-8-481
2-IC4	EI322599	IC TA75458S	45-8-415
2-IC5	EI323564	IC TA7317P	45-8-424
2-TR1	ET307195	Transistor 2SC2240 (GR)(BL)	45-1-302
2-TR2,3	ET322244	Transistor 2SA608K-NP(F)(G)	45-1-375
2-TR4,5	ET316643	Transistor 2SC536K-NP(F)(G)	45-1-362
2-TR6,7	ET307195	Transistor 2SC2240(GR)(BL)	45-1-302
2-TR8	ET305463	Transistor 2SA970(GR)(BL)	45-1-303
2-TR9	ET323105	Transistor 2SD600(E)(F)	45-1-383
2-TR10	ET307195	Transistor 2SC2240(GR)(BL)	45-1-302
2-TR11	ET305463	Transistor 2SA970(GR)(BL)	45-1-303
2-TR12	ET311791	Transistor 2SA968(O)(Y)	45-1-338
2-TR13	ET322244	Transistor 2SA608K-NP(F)(G)	45-1-375
2-TR14,15	ET316643	Transistor 2SC536K-NP(F)(G)	45-1-362
2-TR16	ET311792	FET 2SK150(GR)(Y)(BL)	45-12-22
2-TR17	ET323105	Transistor 2SD600(E)(F)	45-1-383
2-TR18	ET322244	Transistor 2SA608-NP(F)(G)	45-1-375
2-D4,5	ED323056	Silicon Diode 1S2091	45-3-66
2-D6to9	ED323057	Silicon Varister MV12	45-10-16
2-D10to15	ED214457	Silicon Diode 1S2472	45-3-41
2-D16	ED323057	Silicon Varister MV12	45-10-16
2-D17to19	ED624903	Silicon Diode 1S2473	45-3-28
2-D20	ED214457	Silicon Diode 1S2472	45-3-41
2-D21	ED624903	Silicon Diode 1S2473	45-3-28
2-D22,23	ED242368	Zener Diode WZ-240	45-6-37
2-D24	ED562386	Germanium Diode 1S188AM	45-3-24
2-D25	ED323535	Zener Diode 05Z-8.2L	45-6-76
2-D26	ED323534	Zener Diode 05Z-20U	45-6-76
2-D27	ED624903	Silicon Diode 1S2473	45-3-28
2-VR1	EV478686	Semi-Fixed/Vol. V8K4-1 1kB	36-10-266
2-VR2	EV464196	Semi-Fixed/Vol. V8K4-1 2kB	36-10-266
2-RL1,2	EP313565	Relay MS4U 48V DC	47-1-39
2-L1	EO326617	Phase Compensation Coil 2.2μH(K)	23-1-424
2-R2	ER326615	Carbon/R. F 1/4WS 39 ohms(J)	35-11-30
2-R31	ER313774	Metal Oxide Film/R. F 1W 4.7k (J)	35-19-1
2-R71,72	ER323074	Carbon/R. F 1/4WS 1k(J)	35-11-30
2-R74,75	ER322591	Carbon/R. F 1/4WS 100 ohms(J)	35-11-30
2-R76,77	ER323075	Carbon/R. F 1/4WS 4.7k (J)	35-11-30
2-R78	ER308875	Carbon/R. F 1/2W 10 ohms(J)	35-11-27
2-R80,81	ER326616	Metal Oxide Film/R. F 1W 680 ohms(J)	35-19-4
2-R82,83	ER328138	Metal Oxide Film/R. F 2W 220 ohms(J)	35-19-5
2-R89	ER308875	Carbon/R. F 1/2W 10 ohms(J)	35-11-27
2-R90	ER323996	Metal Oxide Film/R. F 1W 100 ohms(J)	35-19-4
2-R91	ER324359	Metal Oxide Film/R. F 1W 56 ohms(J)	35-19-4
2-R92	ER322590	Cement/R. (Metal Plate) 5W (0.47+0.47) ohms(K)	35-16-84
2-R94	ER325114	Carbon/R. F 1/4WS 33 ohms(J)	35-11-30
2-C3	EC657044	NP/C. (Vert.) 1μF(M) 50WV	24-17-26
2-C31to34	EC204671	Ceramic/C. DD31-4E 0.01μF(P) 500WV	24-5-66
2-4	ZS325495	Tapping Screw, #2 BR 3x6	
2-5	ZS447840	Tapping Screw, #2 BR 3x8	

3. MC AMP P.C BOARD (AMU-6002) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
3-TR1	ET305463	Transistor 2SA970(GR)(BL)	45-1-303
3-TR2,3	ET307195	Transistor 2SC2240(GR)(BL)	45-1-302
3-TR4	ET305463	Transistor 2SA970(GR)(BL)	45-1-303
3-D1	ED323057	Silicon Varister MV12	45-10-16
3-SW1	ES-326586	Rotary Slide SW. SRZW45S	25-6-197
3-SW2	ES326587	Rotary Slide SW. SRZR044S	25-6-198
3-C8,9	EC324922	NP/C. 4.7μF(M) 50WV	24-17-35
3-C14	EC324109	Styrol/C. 180PF(J) 50WV	24-11-17
3-C15	EC314995	Styrol/C. 330PF(J) 50WV	24-11-17

4. PULSE POWER SUPPLY P.C BOARD (AMU-6004A) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
4-TR1	ET323529	Transistor 2SA608K-NP(E)(F)	45-1-375
4-TR2	ET316171	Transistor 2SC536K-NP(E)(F)	45-1-362
4-TR3to6	ET323572	Transistor 2SC2335(K)	45-1-381
4-TR7	ET322598	Transistor 2SB632K(E)(F)	45-1-374
4-D1	ED323573	Trigger Diode 1S2093	45-3-65
4-D2	ED560913	Silicon Diode 1S2473 VE	45-3-23
4-D3	ED323512	Silicon Diode CTU-24S	45-2-101
4-D4	ED323513	Silicon Diode CTU-24R	45-2-102
4-D5to8	ED325275	Silicon Diode S5295D	45-2-105
4-T1	EI325947	OSC. Trans. P.C Board Assy AM-U06	AMU-6034
4-T1	BT326607	Pulse Trans. PT-W06T	23-1-418
4-SW1	ES306725	Slide SW. J-S4017	25-3-157
4-L1	EO325281	Choke Coil TCA-20	23-1-411
4-L2to5	EO325278	Inductor TCD-35	23-1-412
4-L6	EO325280	Choke Coil 220μH	23-1-413
4-R1	ER325277	Metal Oxide Film/R. F 1W 68k (J)	35-19-1
4-R5	ER324222	Metal Plate/R. 2W 0.22 ohm(K)	35-16-38
4-R18	ER325288	Metal Oxide Film/R. F 2W 6.8 ohms(J)	35-19-2
4-C2,3	EC326608	Elect./C. (Vert.) 10μF 450WV	24-12-76
4-C4,5	EC326609	Metallized Mylar/C. (Vert.) 0.68μF(K) 400WV	24-16-28
4-C6	EC325316	Metallized Mylar/C. (Vert.) 0.33μF(K) 400WV	24-16-28
4-C8,9	EC323517	Ceramic/C. (Vert.) DP3100 B 100PF(K) 1KWV	24-5-101
4-C21	EC325286	Ceramic/C. (Vert.) HS D 0.0022μF(M) 400WV (U/T, CEE, UK, SAA)	24-5-104
4-C21	EC325266	Ceramic/C. DE7100 0.0047μF(P) 125VAC (CSA, AAL)	24-5-87
4-1	ZG323474	Hold Spring	UCW-5023
4-2	ZS419670	Screw, Pan 3x12	
4-3	ZS380046	Screw, Pan 3x10	
4-4	ZS379350	Screw, Pan 3x6	
4-5	ZS558101	Screw, Pan 3x6 w/Washer	
4-6	TA323481	Packing (A)	UCW-5029

5. RECTIFIER P.C BOARD (AMU-6005/6006/6023) BLOCK

Symobol No.	Parts No.	Description	Schematic No.
5-D1	ED326605	Silicon Stack 4J4B41	45-2-106
5-L1	ER325265	⚠ Power Filter UF-3729 C 182Y2R0 (U/T, CSA, AAL)	23-1-415
5-L1	ER325268	⚠ Power Filter EF-3727-203Y1R2 (CEE, UK, SAA)	23-1-414
5-R1to4	ER622978	Metal Plate/R. MPC71F1 5W 0.47 ohm(K)	35-16-48
5-C1	EC323557	⚠ Oil Paper/C. 0.1μF(K) 1kWV (U/T)	24-8-7
5-C1	EC326827	⚠ Metallized Mylar/C. (Vert.) 0.1μF(M) 125VAC (CSA, AAL)	24-16-30
5-C1	EC258298	⚠ MP/C. PEM271 0.1μF(M) 250WV (CEE, UK, SAA)	24-9-118
5-C2	EC325671	MP/C. (Vert.) 0.01μF(M) 250WV (U/T)	24-9-134
5-C2	EC314688	Ceramic/C. DE7150 FZ 0.01μF(P) 125WV (CSA, AAL)	24-5-87
5-C2	EC325671	MP/C. (Vert.) 0.01μF(M) 250WV (CEE, UK, SAA)	24-9-134
5-C3	EC325286	Ceramic/C. (Vert.) HS D 0.0022μF(M) 400WV (U/T, CEE, UK, SAA)	24-5-104
5-C3	EC326828	Ceramic/C. DE7100 F 0.0022μF(M) 125VAC (CSA, AAL)	24-5-87
5-C4,5	EC326604	Elect./C. 1000μF 200WV (U/T, CSA, AAL)	24-12-74
5-C4,5	EC326606	Elect./C. 220μF 400WV (CEE, UK, SAA)	24-12-75

6. SELECTOR P.C BOARD (AMU-4002) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
6-IC1	EI323054	IC TA7322P	45-8-419
6-TR1	ET219868	Transistor 2SB560(E)(F)	45-1-232
6-D1,2	ED323059	Zener Diode WZ-270	45-6-67
6-SW1	ES323062	Rotary SW. SRJ3035	25-6-191
6-SW2	ES323063	Rotary SW. SRJ3036	25-6-192
6-R3	ER323067	Metal Oxide Film/R. 1/4W 100 ohms(F)	35-17-20
6-R7	ER323351	Metal Oxide Film/R. 1/4W 3.74k (F)	35-17-20
6-R8	ER323069	Metal Oxide Film/R. 1/4W 46.4 ohms(F)	35-17-20
6-C3	EC318358	NP/C. 47μF(M) 6.3WV	24-17-35
6-C9	EC324102	Polypropylene/C. (Vert.) 0.02μF(G) 50WV	24-22-10
6-C10	EC324103	Polypropylene/C. (Vert.) 0.0697μF(G) 50WV	24-22-10
6-C11	EC323055	NP/C. 10μF(M) 16WV	24-17-35

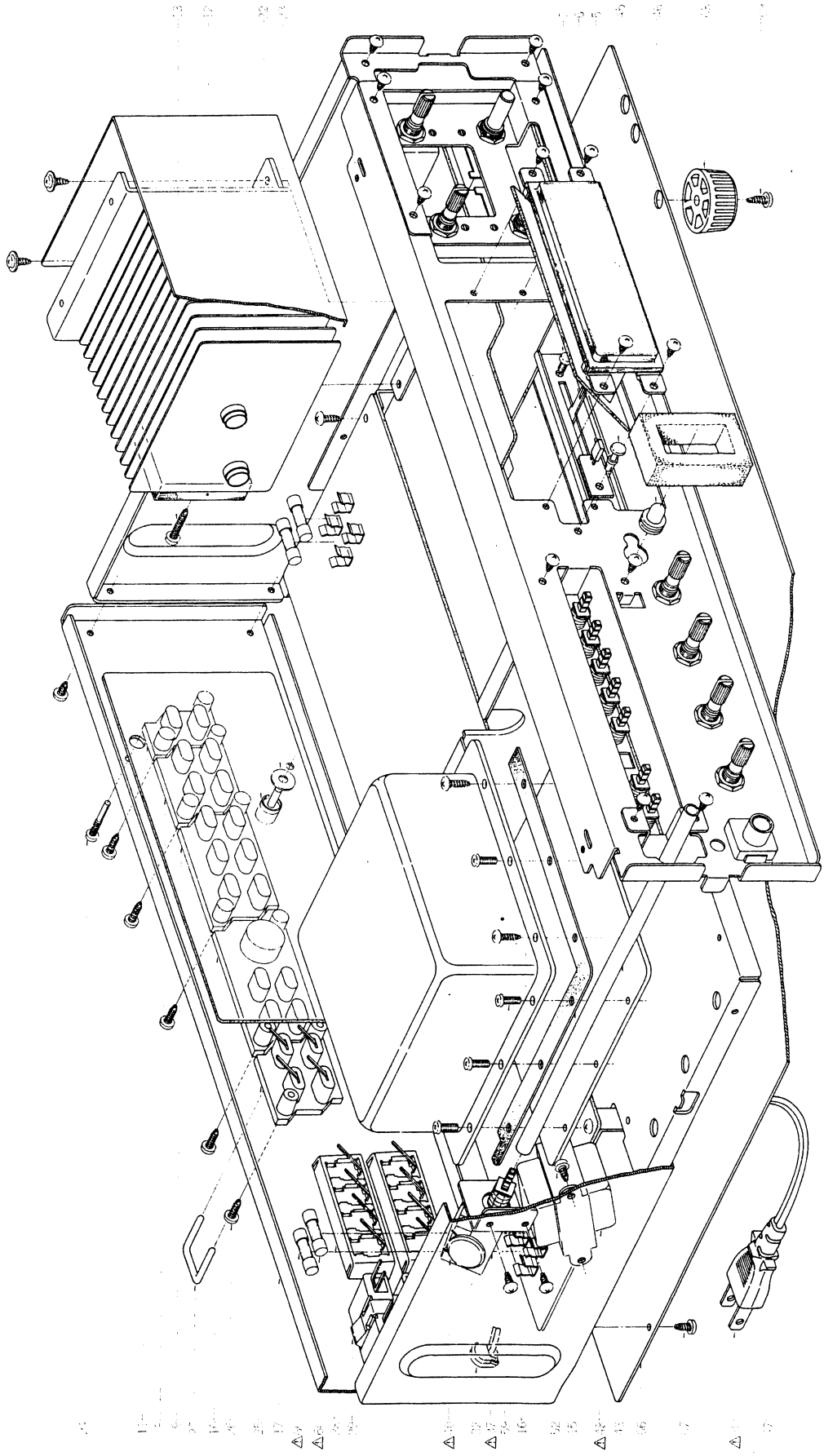
7. TONE CONTROL P.C BOARD (AMU-4003) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
7-IC1	EI323054	IC TA7322P	45-8-419
7-IC2	EI322599	IC TA75458S	45-8-415
7-VR1	EV323051	2-Throw/Vol. GM70E838A-50kCx2	36-22-59
7-VR2	EV323052	2-Throw/Vol. GM70E839A-50kCx2	36-22-58
7-VR3	EV323053	2-Throw/Vol. GM70ED78A-50kWx2	36-22-60
7-VR4	EV324346	Single-Axial 2-Throw/Vol. V16L4G3N 250kZx2	36-22-65
7-C1	EC323055	NP/C. 10μF(M) 16WV	24-17-35
7-C8,9	EC323055	NP/C. 10μF(M) 16WV	24-17-35
7-C15	EC243393	Solid Aluminum/C. (Vert.) 0.22μF(K) 10WV	24-19-2

8. PUSH SW. P.C BOARD (AMU-6001B) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
8-TR1to4	ET316643	Transistor 2SC536K-NP(F)(G)	45-1-362
8-SW1to7	ES326593	7-Throw Push SW. J-K2113	25-5-381

9. ASSEMBLY BLOCK

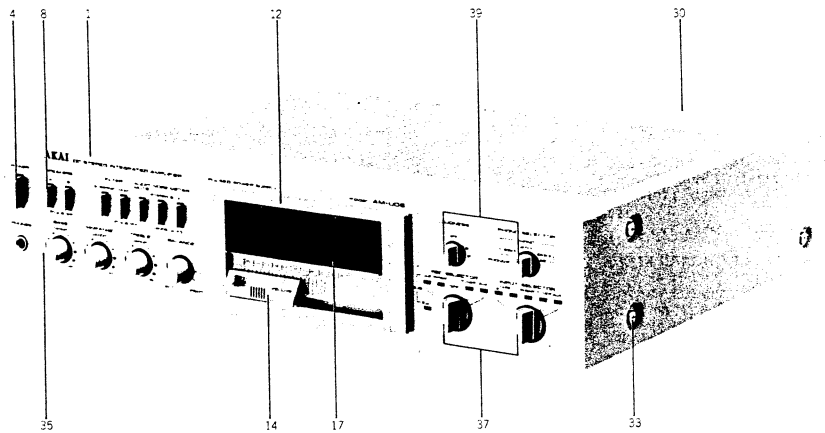


ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.
		LED P.C BOARD (A) BLOCK	
9-1x	ED322773	LED SLP-255D-01	45-15-37
9-2x	ED322772	LED SLP-155D-01	45-15-38
9-3x	SE326570	LED Escutcheon	AMU-6014
9-4x	ZS468101	Tapping Screw #2, Pan 2.6×6	
		LED P.C BOARD (B) BLOCK	
9-5	ED322772	LED SLP-155D-01	45-15-38
		SLIDE VOL. P.C BOARD BLOCK	
9-6	EV323061	2-Throw Slide/Vol. WSDA119F02 250k (Special)×2	36-27-9
9-7	ZS417216	Screw, Pan 3×4	
		PIN JACK P.C BOARD BLOCK	
9-8	EJ323143	Pin Jack 4P	31-5-159
9-9	EJ323144	Pin Jack 6P	31-5-158
9-10	EJ323145	Din 5P, Pin Jack 4P	31-5-157
9-11	EJ326596	Pin Jack 2P	31-5-166
		HEAT SINK BLOCK	
9-12	EI326597	IC STK-0070(2)-SL	45-8-452
9-13	ZS321279	Tapping Screw, #2 BR 3×18	
		PULSE POWER SUPPLY BLOCK	
9-14x	ZS379350	Screw, Pan 3×6	
9-15	TA325261	Packing	AMU-6018
9-16	ZS306459	B-Tight Screw, BR 3×8	
		REAR PANEL BLOCK	
9-17	SP326562	Rear Panel (A) (U/T)	AMU-6008
9-18x	SP326563	Rear Panel (B) (CSA)	AMU-6009
9-19x	SP326565	Rear Panel (C) (AAL)	AMU-6009
9-20x	SP326566	Rear Panel (D) (CEE)	AMU-6010
9-21x	SP326567	Rear Panel (E) (UK,SAA)	AMU-6010
9-22	EJ325358	Earth Terminal	32-1-115
9-23	ZW652408	Washer (SPC) D3.2×10×0.5t	
9-24	ZS308673	Tapping Screw, Pan 3×20 w/Guide	7-1-68
9-25	EJ322581	Pin Jack 4P (RED, WHT)	32-1-106
9-26	ZS522865	Tapping Screw, #2 BR 3×12 (Black)	
9-27	EJ554578	Short Plug	42-1-66
9-28	EJ322582	Push Terminal 4P	32-1-107
9-29	EJ240535	⚠ 3-Throw AC Outlet (U/T, CSA, AAL)	31-1-173
9-30	EW306428	⚠ AC Cord (U/T)	26-3-64
9-31x	EW305691	⚠ AC Cord CUL (CSA, AAL)	26-3-65
9-32	EZ631945	Strain Relief SR-4N-4	2-7-49
9-33x	EJ296853	⚠ 3P In-Let CM-3 (CEE, UK, SAA)	31-1-139
9-34x	ZS463353	Tapping Screw, #2 BR 3×8 (Black) (CEE, UK, SAA)	
		ASSEMBLY BLOCK	
9-35x	ZS325495	Tapping Screw, #2 BR 3×6	
9-36x	ZS308846	Tapping Screw, #2 BR 3×8 (Oval Neck) (Black)	7-1-69
9-37	ES324162	⚠ Push SW. SDG-1P TV-5 (U/T)	25-5-377
9-38x	ES679566	⚠ Push SW. SDG1P TV5 (CSA, AAL)	25-5-204
9-39x	ES310839	⚠ Push SW. SDG1P-E 5A/80A 250V (CEE, UK, SAA)	25-5-210
9-40	EC321302	⚠ Ceramic/C. E 0.01μF(Z) 250VAC (U/T)	24-5-90
9-41x	EC314688	⚠ Ceramic/C. DE7150 FZ 0.01μF(P) 125WV (CSA, AAL)	24-5-67
9-42x	EC327382	⚠ MP/C. (Vert.) 0.0047μF(M) 250WV (CEE, UK, SAA)	24-9-134
9-43	TA323028	Push Rod	AMU-4027
9-44x	ZS422076	Screw, Pan 3×5	
9-45	ZW698308	Nylon Rivet (NRB) 3×5.5 (Black)	2-7-54
9-46	EL326611	Lamp (Cord) 8V 50mA (550mm×2)	28-2-84
9-47	EJ301199	Headphone Jack 3P64M	31-2-83
9-48	BT326592	⚠ Power Trans. AM-U06T-70 (U/T)	38-4-839
9-49x	BT326589	⚠ Power Trans. AM-U06T-20 (CSA, AAL)	38-4-836
9-50x	BT326590	⚠ Power Trans. AM-U06T-40 (CEE)	38-4-837
9-51x	BT326591	⚠ Power Trans. AM-U06T-50 (UK, SAA)	38-4-838
9-52	ZS455207	Tapping Screw, #2 BR 3×5	
9-53x	ZS434250	Screw, Pan 4×8, w/Washer	
9-54x	ZW413188	Nut, #1 M4	
9-55x	ZS406416	Tapping Screw, #2 Countersunk 3×8	
9-56x	ZS498273	Tapping Screw, #2 BR 3×8 W=8	
9-57x	ZS297641	Tapping Screw, #2 BIND 3×8 W=10	
9-58x	EJ313601	⚠ Mini Connector Assy C1101	26-6-323
9-59	ZS523664	Tapping Screw, #2 BR 3×10	
9-60	EF326613	⚠ Fuse 5A 250V (U/T)	39-1-64
9-61x	EF306951	⚠ Fuse 2.5A 250V (U/T)	39-1-64
9-62x	EF325683	⚠ Fuse 5A 125V (CSA, AAL)	39-1-67
9-63x	EF459843	⚠ Fuse ST-6 5A (CSA, AAL)	39-1-63
9-64x	EF623125	⚠ Fuse (Semko T) 2.5AT (CEE, UK, SAA)	39-1-53
9-65x	EF249851	⚠ Fuse (Semko T) 5AT (CEE, UK, SAA)	39-1-52
9-66	SP323044	Bottom Plate	AMU-4038
9-67	ZS447840	Tapping Screw, #2 BR 3×8	
9-68	SA-312465	Circular Foot (A) Part CA	CA-6014
9-69	ZS565942	Tapping Screw, #2 Pan 4×8	

When ordering parts, please quote Parts Number, Description and Model Number.

10. FINAL ASSEMBLY BLOCK



FINAL ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.
		FRONT PANEL BLOCK	
10-1	BD325920	Front Panel Block AM-U06	AMU-6029
10-2x	BD325921	Front Panel Block AM-U06-BL	AMU-6029
10-3x	SE322578	Escutcheon (A)	ATK-2013
10-4	SB322576	Button (A)	ATK-2012
10-5x	SB322577	Button (A-BL)	ATK-2012
10-6x	ZG322579	Spring (A)	ATK-2014
10-7x	SE322559	Escutcheon	AMU-2045
10-8	SB322557	Button	AMU-2044
10-9x	SB322558	Button (BL)	AMU-2044
10-10x	ZG322566	Spring	AMU-2050
10-11x	SE325061	Escutcheon (A)	ATV-4029
10-12	SE322538	Bar Meter Escutcheon	AMU-2032
10-13x	SE322539	Bar Meter Escutcheon (BL)	AMU-2032
10-14	SK324171	Slide Knob Part AM-U04	AMU-4061
10-15x	SK323147	Slide Knob (BL) Part AM-U04-BL	AMU-4061
10-16x	ZW270088	'E' Ring 1.9M	6-1-9
10-17	SZ322544	Bar Meter Plate	AMU-2036
10-18x	SZ322545	Bar Meter Filter	AMU-2037,2058
10-19x	TA323037	Vol. Illumination Plate	AMU-4033
10-20x	SP323038	Scale Back Plate	AMU-4034
10-21x	SP323039	Scale Back Plate (BL)	AMU-4034
10-22x	ZW616004	Washer (SPC) D3.1×8×1t	
10-23x	ZS322402	Special Tapping Screw, Pan 3×8	7-1-70
		FINAL ASSEMBLY BLOCK	
10-24x	ZS447840	Tapping Screw, #2 BR 3×8	
10-25x	ZW324157	Washer (SPC) D6.2×13×0.25t	
10-26x	ZW324158	Washer (SPC) D6.2×13×0.5t	
10-27x	ZW324159	Washer (SPC) D6.2×13×0.8t	
10-28x	ZW265983	Washer (SPC) D6.2×13×1t	
10-29x	ZW324161	Washer (SPC) D6.2×13×1.6t	
10-30	SP323045	Upper Plate (A)	AMU-4039
10-31x	SP323047	Upper Plate (B) (AAL)	AMU-4039
10-32x	SP323046	Upper Plate (A-BL)	AMU-4039
10-33	ZS322570	S-Tight Screw, Bind 4×8	
10-34x	ZS322580	S-Tight Screw, Bind 4×8 (Black) (AAL, BL)	
10-35	SK323042	Knob	AMU-4037
10-36x	SK323043	Knob (BL)	AMU-4037
10-37	SK322553	Knob (B)	AMU-2042
10-38x	SK322554	Knob (B-BL)	AMU-2042
10-39	SK322555	Knob (C)	AMU-2043
10-40x	SK322556	Knob (C-BL)	AMU-2043

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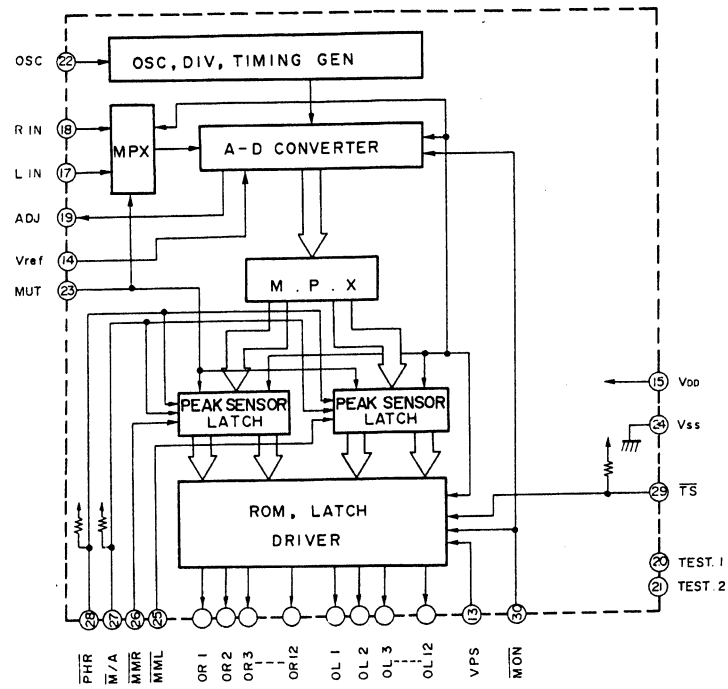
Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.
BA320352	2-1	EJ301199	9-47	SA312465	9-68				
BA320373	2-3	EJ313601	9-58x	SB322557	10-8				
BA320374	2-2	EJ322581	9-25	SB322558	10-9x				
BD325920	10-1	EJ322582	9-28	SB322576	10-4				
BD325921	10-2x	EJ323143	9-8	SB322577	10-5x				
BT326589	9-49x	EJ323144	9-9	SE322538	10-12				
BT326590	9-50x	EJ323145	9-10	SE322539	10-13x				
BT326591	9-51x	EJ325358	9-22	SE322559	10-7x				
BT326592	9-48	EJ326596	9-11	SE322578	10-3x				
BT326607	4-T1	EJ554578	9-27	SE325061	10-11x				
EC204671	2-C31to34	EL326611	9-46	SE326570	9-3x				
EC243393	7-C15	EO325278	4-L2to5	SK322553	10-37				
EC258298	5-C1	EO325280	4-L6	SK322554	10-38x				
EC314688	5-C2	EO325281	4-L1	SK322555	10-39				
EC314688	9-41x	EO326617	2-L1	SK322556	10-40x				
EC314995	3-C15	EP313565	2-RL1,2	SK323042	10-35				
EC318358	6-C3	ER308875	2-R78	SK323043	10-36x				
EC321302	9-40	ER308875	2-R89	SK323147	10-15x				
EC323055	6-C11	ER313774	2-R31	SK324171	10-14				
EC323055	7-C1	ER322590	2-R92	SP-323038	10-20x				
EC323055	7-C8,9	ER322591	2-R74,75	SP323039	10-21x				
EC323517	4-C8,9	ER323067	6-R3	SP323044	9-66				
EC323557	5-C1	ER323069	6-R8	SP323045	10-30				
EC324102	6-C9	ER323074	2-R71,72	SP323046	10-32x				
EC324103	6-C10	ER323075	2-R76,77	SP323047	10-31x				
EC324109	3-C14	ER323351	6-R7	SP326562	9-17				
EC324922	3-C8,9	ER323996	2-R90	SP326563	9-18x				
EC325266	4-C21	ER324222	4-R5	SP326565	9-19x				
EC325286	4-C21	ER324359	2-R91	SP326566	9-20x				
EC325286	5-C3	ER325114	2-R94	SP326567	9-21x				
EC325316	4-C6	ER325265	5-L1	SZ322544	10-17				
EC325671	5-C2	ER325268	5-L1	SZ322545	10-18x				
EC325671	5-C2	ER325277	4-R1	TA323028	9-43				
EC326604	5-C4,5	ER325288	4-R18	TA323037	10-19x				
EC326606	5-C4,5	ER326615	2-R2	TA323481	4-6				
EC326608	4-C2,3	ER326616	2-R80,81	TA325261	9-15				
EC326609	4-C4,5	ER328138	2-R82,83	ZG322566	10-10x				
EC326827	5-C1	ER622978	5-R1to4	ZG322579	10-6x				
EC326828	5-C3	ES306725	4-SW1	ZG323474	4-1				
EC327382	9-42x	ES310839	9-39x	ZS297641	9-57x				
EC657044	2-C3	ES323062	6-SW1	ZS306459	9-16				
ED214457	2-D10to15	ES323063	6-SW2	ZS308673	9-24				
ED214457	2-D20	ES324162	9-37	ZS308846	9-36x				
ED242368	2-D22,23	ES326586	3-SW1	ZS321279	9-13				
ED322772	9-2x	ES326587	3-SW2	ZS322402	10-23x				
ED322772	9-5	ES326593	8-SW1to7	ZS322570	10-33				
ED322773	9-1x	ES679566	9-38x	ZS322580	10-34x				
ED323056	2-D4,5	ET219868	6-TR1	ZS325495	2-4				
ED323057	2-D6to9	ET305463	2-TR8	ZS325495	9-35x				
ED323057	2-D16	ET305463	2-TR11	ZS379350	4-4				
ED323057	3-D1	ET305463	3-TR1	ZS379350	9-14x				
ED323059	6-D1,2	ET305463	3-TR4	ZS380046	4-3				
ED323512	4-D3	ET307195	2-TR1	ZS406416	9-55x				
ED323513	4-D4	ET307195	2-TR6,7	ZS417216	9-7				
ED323534	2-D26	ET307195	2-TR10	ZS419670	4-2				
ED323535	2-D25	ET307195	3-TR2,3	ZS422076	9-44				
ED323573	4-D1	ET311791	2-TR12	ZS434250	9-53x				
ED325275	4-D5to8	ET311792	2-TR16	ZS447840	2-5				
ED326605	5-D1	ET316171	4-TR2	ZS447840	9-67				
ED560913	4-D2	ET316643	2-TR4,5	ZS447840	10-24x				
ED562386	2-D24	ET316643	2-TR14,15	ZS455207	9-52				
ED624903	2-D17to19	ET316643	8-TR1to4	ZS463353	9-34x				
ED624903	2-D21	ET322244	2-TR2,3	ZS468101	9-4x				
ED624903	2-D27	ET322244	2-TR13	ZS498273	9-56x				
EF249851	9-65x	ET322244	2-TR18	ZS522865	9-26				
EF306951	9-61x	ET322598	4-TR7	ZS523664	9-59				
EF325683	9-62x	ET323105	2-TR9	ZS558101	4-5				
EF326613	9-60	ET323105	2-TR17	ZS565942	9-69				
EF459843	9-53x	ET323529	4-TR1	ZW265983	10-28x				
EF623125	9-64x	ET323572	4-TR3to6	ZW270088	10-16x				
EI322599	2-IC4	EV323051	7-VR1	ZW324157	10-25x				
EI322599	7-IC2	EV323052	7-VR2	ZW324158	10-26x				
EI323054	6-IC1	EV323053	7-VR3	ZW324159	10-27x				
EI323054	7-IC1	EV323061	9-6	ZW324161	10-29x				
EI323564	2-IC5	EV324346	7-VR4	ZW413188	9-54x				
EI325947	4-T1	EV464196	2-VR2	ZW616004	10-22x				
EI326595	2-IC2	EV478686	2-VR1	ZW652408	9-23				
EI326597	9-12	EW305691	9-31x	ZW698308	9-45				
EJ240535	9-29	EW306428	9-30						
EJ296853	9-33x	EZ631945	9-32						

SECTION 3

SCHEMATIC DIAGRAM

1. SCHEMATIC DIAGRAM OF ICs
2. AM-U06 NO. 4-1 1601220A CONNECTION DIAGRAM
3. AM-U06 NO. 4-2 1601221A MAIN AMP SCHEMATIC DIAGRAM
4. AM-U06 NO. 4-3 1601222A PULSE POWER SCHEMATIC DIAGRAM
5. AM-U06 NO. 4-4 1601223A MC AMP SCHEMATIC DIAGRAM

LC7556



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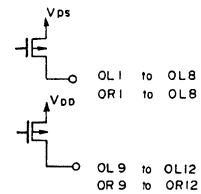

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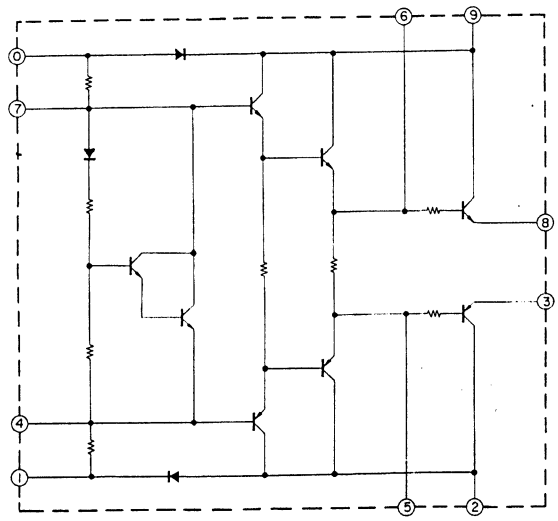
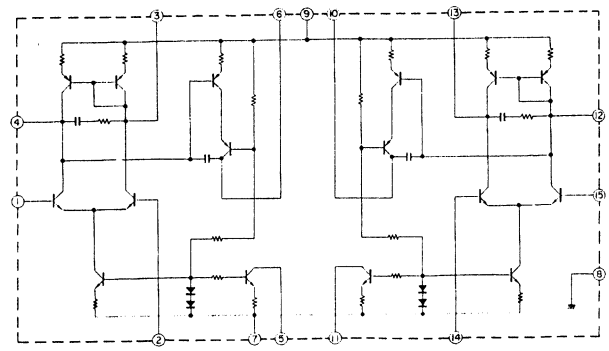
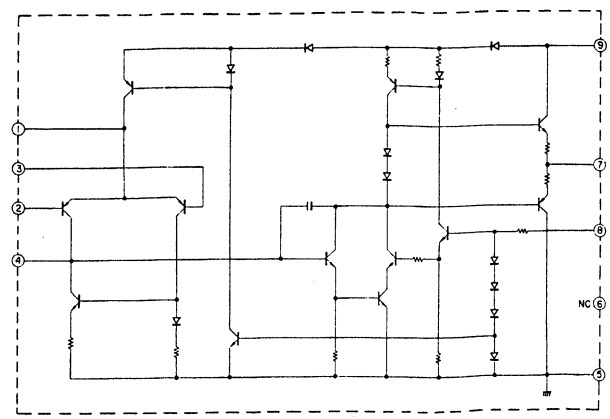


STK-3062



TA7322P



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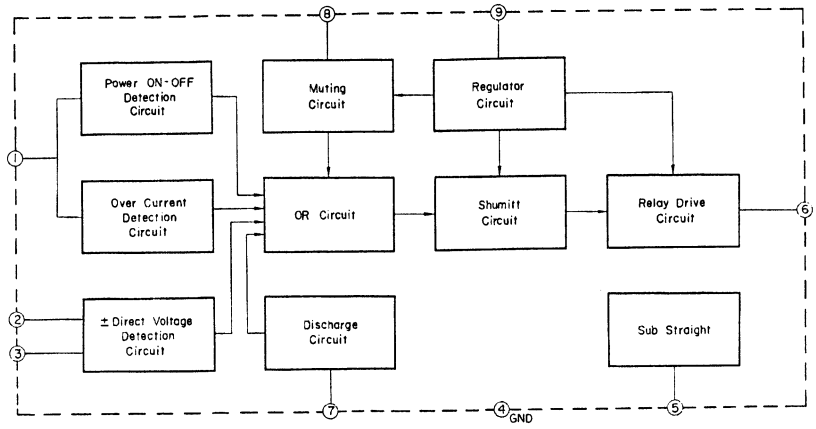

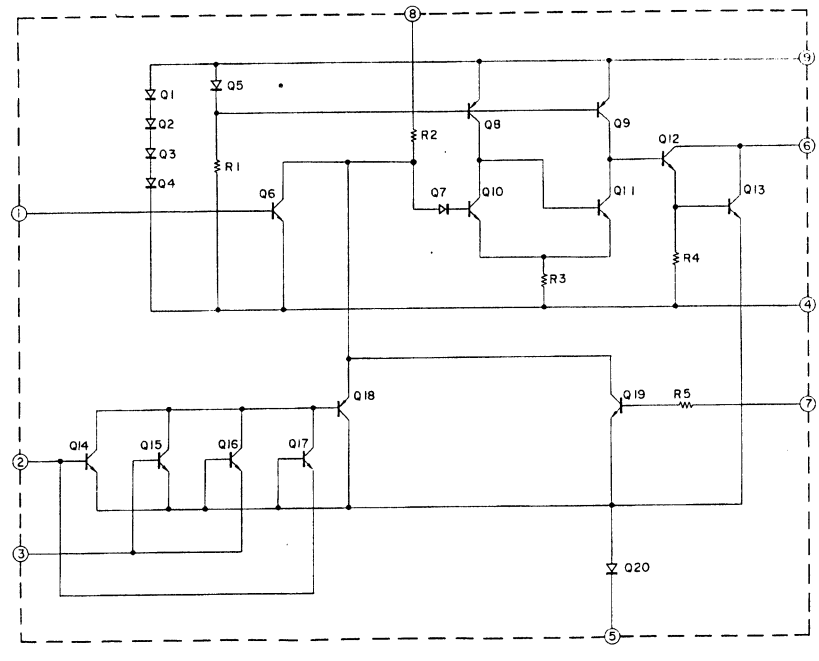

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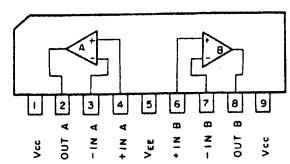
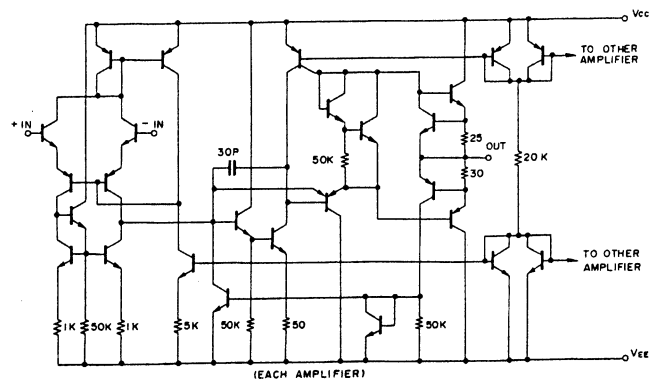




AM-U06

PIN JACK P.C BOARD AMU-4005

MC AMP P.C BOARD (1/2) AMU-6002

MAIN AMP P.C BOARD AMU-6001A

SELECTOR P.C BOARD AMU-4002

PUSH SWITCH P.C BOARD AMU-6001B

MC AMP P.C BOARD(2/2) AMU-6002

SLIDE VOLUME P.C BOARD AMU-4008

LED P.C BOARD(A) AMU-6003

BAR METER P.C BOARD AMU-2006

TONE CONTROL P.C BOARD AMU-4003

RECTIFIER P.C BOARD(C) AMU-6006

RECTIFIER P.C BOARD(B) AMU-6023

RECTIFIER P.C BOARD(A) AMU-6005

PULSE POWER SUPPLY P.C BOARD AMU-6004A

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN μF 50 WV(J)
(FS) = FAIL SAFE RESISTORS
-||- = NON-POLAR CAPACITORS
POWER TRANSFORMER IS DIFFERENT ACCORDING TO AREA

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS
AVERTISSEMENT: ⚠ IL INDIQU LES COMPOSANTS CRITIQUES DE SÛRETÉ. POUR MAINTENIR LE DEGRÉ DE SECURITE DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT

AM-U06 CONNECTION DIAGRAM NO,4-1 1601220A

AM-U06

*	F3	F4
U/T	5A 250V	5A 250V
CSA, AAL	ST-6 5A	ST-6 5A
UK, CEE, 3AA	T5A	T5A

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN μF 50 WV(K)
(FS) = FAIL SAFE RESISTORS
⊣⊢ = NON-POLAR CAPACITORS
POWER TRANSFORMER IS DIFFERENT ACCORDING TO AREA

⚠WARNING ⚠INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS
⚠AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÛRETÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SÉCURITÉ QUE PAR DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

AM-U06 MAIN AMP SCHEMATIC DIAGRAM
NO. 4-2 160122IA
2C

001112B

AM-U06

※	R10	R13
U/T, CEE, UK, SAA	4.7M	2.7M
CSA, AAL	1.8M	

OSC TRANS
P.C BOARD AMU-6004B

U/T CEE UK SAA

L2 to L5
TCD-35 12μH

C11 to C14
100/63(M)

D3 CTU-24S

D4 CTU-24R

D5 to D8
S5295D

L6 220μH

L7 220μH

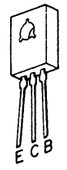
	C21	C22
U/T, CEE UK, SAA	0.0047/250(M)	0.0047/250(M)
CSA, AAL	0.0047/125VAC(M)	

⚠ T1 T4-8-2

⚠ T1 PT-W06T

PULSE POWER SUPPLY P.C BOARD AMU-6004A

2SA608K
2SC536K



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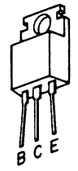

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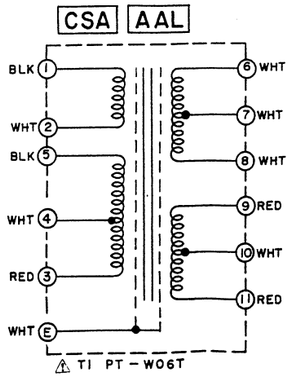


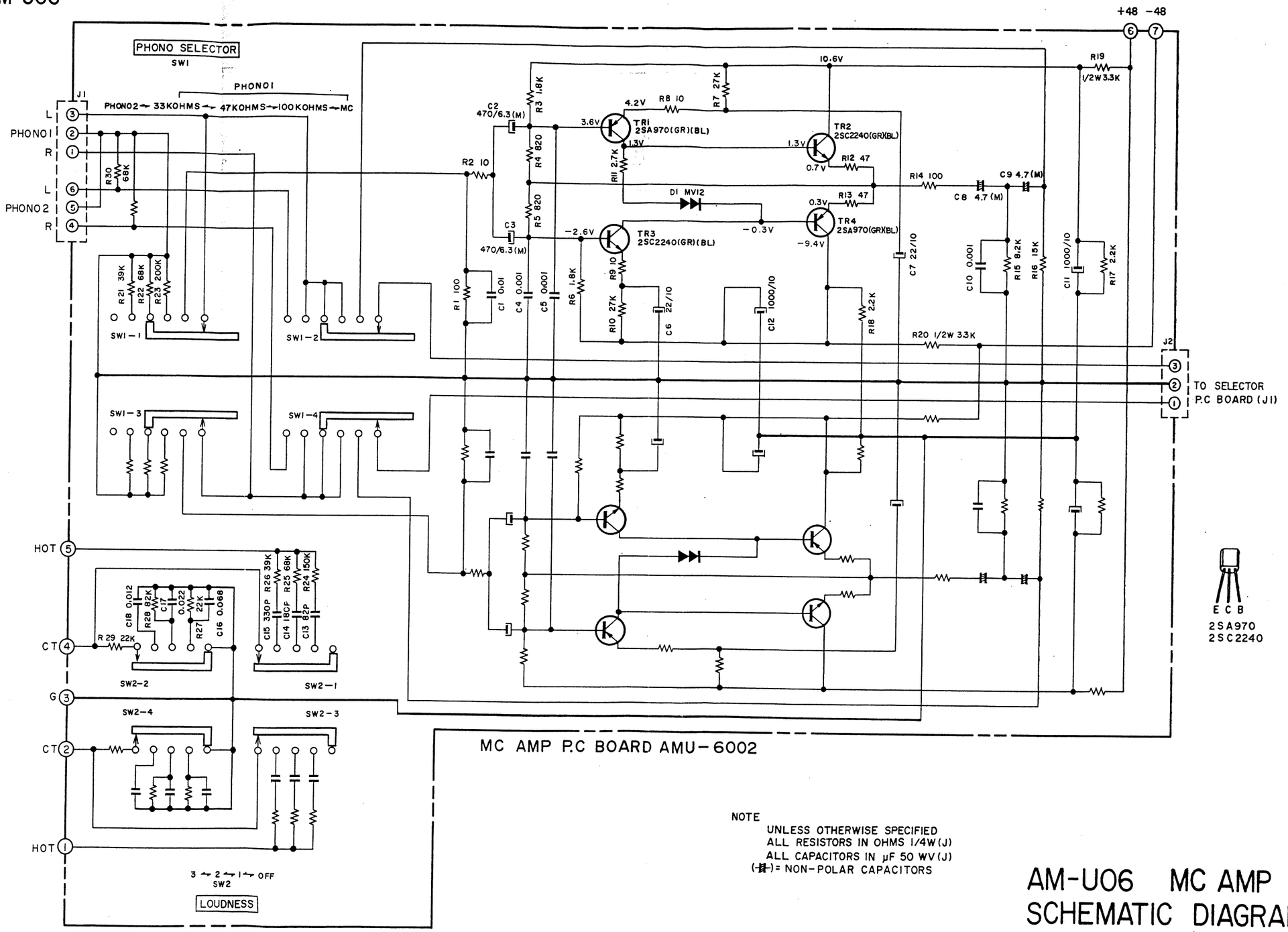
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN μF 50 WV(J)
(⊣⊢)= NON-POLAR CAPACITORS

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.
AVERTISSEMENT: ⚠IL INDIQU LES COMPOSANTS CRITIQUES DE SÛRETE. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT.

AM-U06
PULSE POWER
SCHEMATIC DIAGRAM
NO. 4-3 1601222A
2C

001113C

AM-U06



NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN μF 50 WV(J)
(⊣⊢)= NON-POLAR CAPACITORS

AM-U06 MC AMP SCHEMATIC DIAGRAM NO. 4-4 1601223A 2C

001114